Final

Finding of Suitability to Transfer for Parcel G

Hunters Point Naval Shipyard San Francisco, California

Date xx, 2015

Prepared for:
Department of the Navy
Base Realignment and Closure
Program Management Office West
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ACRONYMS AND ABBREVIATIONS

§	Section
§§	Sections
µg	Microgram
ACM	Asbestos-containing material
AOC	Area of concern
Arcadis	Arcadis U.S., Inc.
ARIC	Area requiring institutional controls
AST	Aboveground storage tank
BCT	BRAC Cleanup Team
BEC	BRAC Environmental Coordinator
BRAC	Base Realignment and Closure
BRRM	Base Redevelopment and Realignment Manual
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CFR	*Code of Federal Regulations*
cm^2	Square centimeter
COC	Chemical of concern
CRUP	Covenant to restrict use of property
cy	Cubic yard
DERP	Defense Environmental Restoration Program
DoD	U.S. Department of Defense
DTSC	Department of Toxic Substances Control
EBS	Environmental baseline survey
EPA	U.S. Environmental Protection Agency
ERRG	Engineering/Remediation Resources Group, Inc.
FAD	Friable, accessible, and damaged
FFA	Federal Facility Agreement
FIFRA	Federal Insecticide, Fungicide, and Rodenticide Act
FOST	Finding of Suitability to Transfer
FWEC	Foster Wheeler Environmental Corporation
HLA	Harding Lawson Associates
HPNS	Hunters Point Naval Shipyard
HRA	Historical radiological assessment
IC	Institutional control
IPE	Industrial process equipment
IR	Installation Restoration

ACRONYMS AND ABBREVIATIONS (CONTINUED)

ITSI	Innovative Technical Solutions, Inc.
LBP	Lead-based paint
LLRW	Low-level radioactive waste
NAVSEA	Naval Sea Systems Command
Navy	Department of the Navy
NEESA	Naval Energy and Environmental Support Activity
NFA	No further action
O&M	Operation and maintenance
OCB	Oil circuit breaker
PAH	Polycyclic aromatic hydrocarbon
PCB	Polychlorinated biphenyl
PMO	Program Management Office
ppm	Part per million
PWC	Public Works Center
RACR	Remedial action completion report
ROD	Record of decision
Sealaska	Sealaska Environmental Services, LLC
SFRA	San Francisco Redevelopment Agency
Shaw	Shaw Environmental, Inc.
SI	Site inspection
SVE	Soil vapor extraction
TCRA	Time-critical removal action
TPH	Total petroleum hydrocarbons
TSCA	Toxic Substances Control Act
U.S.C.	*United States Code*
UST	Underground storage tank
VOC	Volatile organic compound
Water Board	California Regional Water Quality Control Board, San Francisco Bay Region
YEI	YEI Engineers, Inc.
ZVI	Zero-valent iron

1.0 PURPOSE

The purpose of this Finding of Suitability to Transfer (FOST) report is to summarize how the requirements and notifications for hazardous substances, petroleum products, and other regulated materials have been satisfied for Parcel G at Hunters Point Naval Shipyard (HPNS) (Figure 1). Figure 2 shows the area covered by Parcel G (termed the "Property").

This FOST has been prepared in accordance with the Department of Defense (DoD) Base Redevelopment and Realignment Manual (BRRM) (DoD 2006) and the Navy Base Realignment and Closure (BRAC) Program Management Office (PMO) Policy for Processing Findings of Suitability to Transfer or Lease (Navy BRAC PMO 2008).

2.0 PROPERTY DESCRIPTION

HPNS is located in southeastern San Francisco on a peninsula that extends east into San Francisco Bay, California (Figure 1). A portion of HPNS has been conveyed out of federal ownership (former Parcel A). The remaining real property is currently divided into a total of 12 parcels, three of which are described as "utility corridors." Parcel G is the subject of this FOST (Figure 2). Historically, Parcel G was part of the industrial support area at HPNS and was used for shipping, ship repair, and office and commercial activities.

The Property includes about 40 acres in the central area of HPNS and is bounded by Parcels UC-1 and UC-2 to the north, Parcels C and D-1 to the east, Parcels D-1 and E to the south, and Parcels E and UC-1 to the west. The Property includes Installation Restoration (IR) Sites 9, 33, 34, 37, 44, 65, 66, 67, and 71. Portions of basewide IR Site 50 (storm drain and sanitary sewer lines), IR Site 51 (former transformer locations), and site inspection (SI) site SI-45 (steam lines) are also within the Property. The land surface at the Property is entirely paved or covered by structures and slopes gently from northwest to southeast toward the bay (Figure 3).

Future land uses. The original redevelopment plan developed by the former San Francisco Redevelopment Agency (SFRA) in 1997 divided HPNS into reuse areas (SFRA 1997). The reuse areas included residential, educational and cultural, maritime and industrial, mixed use, open space, and research and development uses. The former SFRA issued an amended reuse plan in 2010 that incorporated "land use districts" in the subdivision of HPNS (SFRA 2010). The Property is included in the Shipyard South Multi-Use District. Principal uses within this land use district include residential; institutional; retail sales and services; office and industrial; multi-media and digital arts; athletic and recreational facilities; and civic, arts, and entertainment uses (SFRA 2010). The 2010 reuse plan expanded potential reuse options at the Property to include residential use options. However, the plan did not introduce any new exposure scenarios that were not already taken into account by the record of decision (ROD) (Navy 2009). Refer to Section 6.0 for a more detailed description of restrictions on future land uses at the Property.

3.0 SUMMARY OF ENVIRONMENTAL CONDITIONS

HPNS was listed on the U.S. Environmental Protection Agency (EPA) National Priorities List under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) in 1989. The Defense Environmental Restoration Program (DERP), codified as 10 *United States Code* (U.S.C.) Sections (§§) 2701–2709, gave the DoD Environmental Restoration Program a statutory basis. The Navy implements the DERP subject to, and in a manner consistent with, CERCLA and its regulations (the National Oil and Hazardous Substances Pollution Contingency Plan at Title 40 of the *Code of Federal Regulations* [CFR] Part 300). In September 1990, EPA Region 9, the California Environmental Protection Agency Department of Toxic Substances Control (DTSC), the California Regional Water Quality Control Board, San Francisco Bay Region (Water Board) and the Navy signed a Federal Facility Agreement (FFA) (Navy 1990). EPA, DTSC, and the Water Board were notified of the initiation of this FOST. Regulatory agency comments to this FOST are provided in Appendix B. The Navy, EPA, DTSC, and the Water Board representatives are collectively referred to as the BRAC Cleanup Team (BCT) for HPNS.

This section summarizes how the applicable environmental requirements for CERCLA, including radiological and other regulated hazardous materials, have been fully addressed at the Property (presented in Table 1).

Pursuant to CERCLA and Title 40 CFR Part 373, the deed for each parcel will contain, to the extent such information is available on the basis of a complete search of agency files, a notification of hazardous substances stored for 1 year or more or known to have been released or disposed of within the parcel. The information required to support this notification is provided in Appendix A. The notification will consist of the type and quantity of such hazardous substances; the time when storage, release, or disposal took place; and a description of the remedial or response action taken, if any.

3.1 COMPREHENSIVE ENVIRONMENTAL RESPONSE, COMPENSATION, AND LIABILITY ACT

Environmental inspections, assessments, and investigations were conducted beginning in 1983 to support closure, leasing, and transfer at HPNS. The Navy and the regulatory agencies signed a CERCLA record of decision (ROD) for Parcel G in 2009 (Navy 2009). The ROD addressed both soil and groundwater contaminated by CERCLA hazardous substances at Parcel G. The Navy and EPA jointly selected the remedy, which included excavation and off-site disposal of soil in selected areas followed by installation of durable covers across all of Parcel G as physical barriers to cut off potential exposure to soil. The remedy for soil also incorporated removal of two soil stockpiles and off-site disposal. The remedy selected for contaminated groundwater was active treatment by injection of zero-valent iron (ZVI) or a biological substrate to destroy volatile organic compounds (VOC) and treat hexavalent chromium in groundwater, followed by long-term monitoring. Refer to the current work plan for the basewide groundwater monitoring program (CE2-Kleinfelder 2012b) for details of long-term groundwater monitoring at the Property. The remedy also included a soil vapor survey, institutional controls (IC), and cleanup of radiologically impacted soil and structures.

The chemicals of concern (COC) released in soil at the Property include metals; VOCs; semivolatile organic compounds, including pesticides, polychlorinated biphenyls (PCB), and polycyclic aromatic hydrocarbons (PAH); and total petroleum hydrocarbons (TPH). Radionuclides of concern at the Property include cesium-137, radium-226, and strontium-90. COCs in groundwater are primarily VOCs and selected metals. The main VOCs of concern include trichloroethene and tetrachloroethene and their degradation products, dichloroethene and vinyl chloride. Metals of concern in groundwater include hexavalent chromium and nickel. The primary risk to human health and the environment from the COCs and radionuclides is through direct contact with soil or groundwater, or inhalation of soil vapor from vapor intrusion into indoor air.

The following sections describe removal actions completed before the ROD was signed, remedial and removal actions completed in accordance with and after the ROD, and radiological concerns that have been addressed on the Property.

3.1.1 Pre-ROD Removal Actions

The Navy completed a group of removal actions at the Property before the ROD was signed in 2009. The following list provides a summary of the pre-ROD removal actions. The Property was formerly part of Parcel D, which was subdivided in 2008 to form Parcels D-1, D-2, G (the Property), and UC-1. Therefore, some of the descriptions also include removals for areas adjacent to the Property in former Parcel D.

- **1974 to 1998:** Removal of PCB-bearing electrical equipment basewide.
    - **1974 to 1988:** Removal and disposal off site of 199 transformers, including 99 found to contain PCBs. Most transformers were removed in 1987 and 1988 (YEI Engineers, Inc. [YEI] 1988).
    - **1996:** Removal and disposal off site of 239 pieces of PCB-containing equipment (Public Works Center San Francisco Bay [PWCSFB] 1996).
- **1991 to 1995**: Approximately 4,665 tons of sandblast grit was collected from areas across HPNS and consolidated at Parcel E. In addition, about 90 tons of sandblast grit was removed from IR Site 44 and reused off site in the manufacture of asphalt (Battelle 1996).
- **1994 to 1996:** Contaminated equipment and residue were removed from IR Site 9, the pickling and plating yard. Approximately 200,000 pounds of hazardous waste liquids, 1,500 cubic yards (cy) of hazardous waste solids, 100,000 pounds of nonhazardous waste liquids, and 350,000 pounds of scrap metal were removed and disposed of off site (SulTech 2007).
- **1996:** Approximately 1 cy of soil affected by a cesium-137 spill was removed from an area behind Building 364.

- **1996 to 1997:** Removal actions were completed at exploratory excavations. About 350 cy of soil was removed from five areas (IT Corporation 1999).

- **1996 to 1997:** More than 1,200 tons of sediment was removed from the storm drain system, including storm drains on the Property, and disposed of off site (IT Corporation 1997).

- **2001:** About 63 cy of soil was removed from IR Sites 8, 9, 37, 53, 55, and 65. Steam lines saturated with oil were removed; other steam lines were pressure-tested, cleaned, and left in place (Tetra Tech EM Inc. 2001).

- **2001 to 2002:** Approximately 15 cy of soil affected by a cesium-137 spill was removed from IR Site 33 South.

- **April 2002 to June 2003:** Decontamination and waste consolidation were conducted, including encapsulating or removing asbestos-containing material (ACM); removing and disposing of structural materials, paint booths, and numerous abandoned waste items; removing and disposing of hoods, vents, and ducts associated with industrial processes; removing or disabling existing aboveground storage tanks (AST); and cleaning industrial process-related sumps, vaults, trenches, and equipment foundations (Foster Wheeler Environmental Corporation [FWEC] 2003). More than 27,500 pounds of material was removed and disposed of off site.

3.1.2 Post-ROD Remedial and Removal Actions

The following list summarizes activities conducted after the ROD was signed.

- **July 2007 to June 2011:** Radiological removal actions were completed at Parcel G. A total of 23,166 linear feet of sanitary sewer and storm drains and about 50,688 cy of soil were excavated; approximately 2,828 cy of soil was disposed of off site as low-level radioactive waste (LLRW) (Tetra Tech EC, Inc. 2011). Radiological concerns are discussed in more detail in Section 3.1.3.

- **October 2008 to April 2009:** A treatability study was conducted for groundwater at Parcels D-1 and G using ZVI injection (Alliance Compliance 2010). A total of about 148,000 pounds of ZVI was injected at 97 locations. COCs in groundwater at Parcel G indicate concentrations less than remediation goals or declining trends since the treatment, except at well IR33MW64A (see Figure 3 for this well location), where concentrations were erratic (Arcadis U.S., Inc. [Arcadis] 2014a). Groundwater continues to be monitored semiannually as part of the basewide groundwater monitoring program.

- **April to May 2010:** The pickling vault was removed at IR Site 9 (adjacent to Building 423) and about 31,000 pounds of ZVI was placed in the excavation for further treatment of hexavalent chromium in groundwater (Tetra Tech EC, Inc. 2010). Concentrations of hexavalent chromium remained below the trigger level in samples collected from wells downgradient from the pickling vault for 3 years after the removal and treatment, until groundwater sampling ceased (CE2-Kleinfelder 2012a).

- **September 2010:** A soil vapor survey was completed for selected areas at Parcel G, including areas overlying VOC plumes in groundwater and other areas where VOCs were suspected based on previous soil or groundwater sample results (Sealaska Environmental Services, LLC [Sealaska] 2013).

- **February to July 2011:** Soil excavation and stockpile removals were completed (Engineering/Remediation Resources Group [ERRG] 2011). A total of 569 cy was removed and disposed of off site from nine locations at Parcels B, D-1, and G. Two of the removal areas were located at Parcel G. A total of 52 cy was removed and disposed of off site from two stockpiles at Parcel G.

- **January to July 2013:** Construction of durable covers was completed. Evaluations in the remedial action completion report (RACR) also verified that the previous ZVI treatability study met the remedial action objectives for groundwater (Arcadis 2014a).

The final RACR for Parcel G was submitted in March 2014 (Arcadis 2014a). EPA, DTSC, and the Water Board have concurred with the final RACR (EPA 2014a, DTSC 2014, Water Board 2014). The final RACR for the soil excavation and stockpile removals at Parcels B, D-1, and G was submitted in October 2011 (ERRG 2011) and EPA has concurred with this RACR (EPA 2014b). Long-term operation and maintenance (O&M) requirements for the durable covers at Parcel G are detailed in the final O&M plan (Arcadis 2014b). ICs in the form of deed restrictions and a Covenant to Restrict the Use of Property (CRUP) will become effective when the Property is transferred by quitclaim deed to prevent or minimize exposure to areas where potential unacceptable risk is posed by COCs in soil and groundwater. A soil gas survey was completed at the Property in 2010 (Sealaska 2013). Figure 4 shows the areas requiring institutional controls (ARIC) for VOC vapors as currently envisioned based on the results of the soil vapor survey, as well as areas for other restrictions. The ARICs for VOC vapors have been established through a memorandum from the Navy BRAC Environmental Coordinator (BEC) to the administrative record file addressing the revised VOC ARICs boundary as a non-significant change to the remedy selected in the ROD (see 55 Federal Register 8772, March 8, 1990) (Navy 2014). Figure 4 also shows areas with restrictions related to residential use and Property-wide restrictions (for example, related to groundwater use). Refer to Section 6.0 for details on restrictions.

3.1.3 Radiological Concerns

The Navy identified potentially radiologically impacted sites throughout HPNS in the Historical Radiological Assessment (HRA) (Naval Sea Systems Command [NAVSEA] 2004) including within the Property, associated with former use of general radioactive materials and decontamination of ships used during atomic weapons testing in the South Pacific. The HRA identified Buildings 351, 351A, 366, 401, 408, 411, and 439 and one former building site (317/364/365) as being radiologically impacted within the Property. Impacted areas are generally those with a history of radiological operations and, therefore, have the potential for residual radioactive contamination (NAVSEA 2004). These buildings or former building sites were subsequently surveyed and determined to present no unacceptable radiological risks. Based on the review of all relevant documentation and independent confirmatory analysis, all of the potentially radiologically impacted buildings and building sites previously identified in the HRA within the Property have been recommended by the California Department of Public Health's Environmental Management Branch for radiological unrestricted release (DTSC 2012).

The combined storm drain and sanitary sewer lines (IR Site 50) were investigated for the presence of radiological contaminants. The storm drain lines were used to transfer storm water runoff to the bay; the system was originally designed and built in the 1940s as a combined sanitary and storm sewer system, using the same conveyance piping and 40 separate discharge outfalls into the bay. In 2006, based on the radiological operational history at HPNS, the Navy concluded that a response action was required for the radiologically impacted media in and around the storm drain and sanitary sewer lines. The Navy further concluded that the only acceptable alternative to address potential radioactive contamination was to excavate, survey, and appropriately dispose of the radiologically impacted materials (Navy 2006).

The Navy has completed a time-critical removal action (TCRA) for storm drains and sanitary sewers within the Property; refer to Figure 3 for the locations of storm drains and sanitary sewers. The TCRA involved excavating radiologically impacted storm drain and sanitary sewer lines and surrounding soil to achieve the removal action cleanup objectives. A total of 7,742 soil samples were collected to support the radiological removals. Approximately 2,828 cy of soil did not meet radiological release criteria and was disposed of off site as LLRW. The TCRA met the remedial action objectives in the ROD for the Property as documented in the removal action completion report for the Property (Tetra Tech EC, Inc. 2011). Based on the removal action completion report, DTSC has concurred that the Property is suitable for unrestricted use with respect to radiological issues (DTSC 2012).

3.2 Petroleum Products and Derivatives

The petroleum program strategy for site closure described in the Final New Preliminary Screening Criteria and Petroleum Program Strategy (Shaw Environmental, Inc. [Shaw] 2007) and revised by the Water Board (2008) provides the methodology and criteria used to identify petroleum-related sites that may require corrective action or further characterization at HPNS. The Navy and the Water Board identified ten petroleum areas of concern (AOC) within the Property, including AOCs 33-A, 33-B, 33-C, 37-A, 45D-A, and 65-A, and borings IR34B018,

IR34B023, IR71B008, and PA45TA00. AOCs 33-B and 37-A and borings IR34B018 and PA45TA00 contained petroleum commingled with CERCLA constituents and are termed "TPH-commingled AOCs." Figure 5 shows the locations of the ten AOCs/borings. These AOCs/borings have been recommended for no further action (NFA) in accordance with the HPNS petroleum program strategy, as documented in the Final Petroleum Hydrocarbon Site Closeout Report for Parcels D-1, D-2, and G (Former Parcel D) (ITSI 2011). The Water Board has concurred with the Navy's individual site closeout reports, which recommended NFA. The Water Board has issued NFA letters closing these sites (Water Board 2011a through 2011h).

Pipes coated with a material containing PAHs may be present below ground surface at various locations at the Property. PAHs are regulated substances and must be handled in accordance with all applicable federal, state, and local laws and regulations. The Navy, in consultation with EPA, DTSC, and the Water Board, has determined that the pipes and associated coating material in their existing subsurface condition do not present any threat to human health or the environment, and will not present any threat to human health or the environment if and when removed and handled in accordance with applicable laws.

3.3 ABOVEGROUND AND UNDERGROUND STORAGE TANKS AND PIPELINES

The following sections discuss ASTs and underground storage tanks (UST). No buried fuel lines have been identified at the Property.

3.3.1 ASTs

In 1998, the environmental baseline survey (EBS) report (Tetra Tech EM Inc. 1998) identified 13 ASTs associated with buildings within the Property, ranging in size from less than 55 gallons to 1,600 gallons. The tanks were associated with storage of solvents, fuel oil, and wastewater. Three of the ASTs near Building 302 (Figure 5) were partially buried and were later closed as USTs (U302, U302-1, and U302-3). The remaining 10 ASTs were located inside Buildings 302 (four), 304 (two), 324 (two), 363 (one), and 411 (one). These ASTs have been removed and the surrounding areas investigated as part of the IR or petroleum programs.

3.3.2 USTs

A total of nine USTs were present at the Property; seven of these USTs were removed and two were closed in place. Figure 5 shows the locations of these former USTs and any associated AOCs. The following list summarizes information related to the USTs (ITSI 2011).

- S-304 and S-305. Two, 7,000-gallon gasoline tanks southeast of Building 304 (AOC 33-B). Removed in 1991.
- S-435(1) and S-435(2). Two, 750-gallon solvent tanks northeast of Building 435 (AOC 37-A). Removed in 1991.

- U302, U302-1, and U302-3. Three, 1,600-gallon solvent tanks southwest of Building 302 (AOC 33-C). Removed in 2000.

- U439-1 and U439-2. Two tanks with a combined capacity of 13,000 gallons southwest of Building 439 intended to be used for acidic and alkaline wastewater. According to the EBS report, these tanks were installed and tested but never used (Tetra Tech EM Inc. 1998). In 2000, the tanks were closed in place because of their proximity to Building 439 (ITSI 2011).

3.4 MUNITIONS AND EXPLOSIVES OF CONCERN

Cargo ammunition and explosive items in ship's allowances were loaded and discharged only at designated naval ordnance facilities or explosive anchorages. Ships scheduled to undergo repair or overhaul were all relieved of their ammunition and explosives, except for permissible small arms ammunition, before they entered into the waters near the shipyard (Naval Energy and Environmental Support Activity 1984).

There is no record of munitions or explosives of concern on the Property.

3.5 ASBESTOS-CONTAINING MATERIAL

Navy building inspectors conducted a survey of structures at HPNS between August and October 1993 to identify ACM. The survey results were reported in Asbestos Survey Report, Naval Station Treasure Island, Hunters Point Annex, Parcels B through E (Mare Island Naval Shipyard 1994) and summarized in the EBS report (Tetra Tech EM Inc. 1998). Buildings 302, 303, 304, 323, 324, 351, 351A, 363, 366, 401, 402, 404, 407, 408, 409, 411, 417, 418, 419, 420, 421, 422, 423, 424, 435, 436, 437, and 439 were found to contain either ACM, assumed ACM, or suspected ACM. The Navy Public Works Center (PWC) conducted remediation for ACM in 1995 to 1997. PWC repaired, encapsulated, or removed and disposed of off site loose or damaged pipe insulation and ACM debris in 82 buildings at HPNS. The EBS report summarizes ACM conditions and remediation conducted for all buildings at the Property. The Navy completed additional remediation for ACM during 2002 to 2003 at the following buildings: 302, 363, 366, 401, 402, 404, 407, 411, 418, and 435 (FWEC 2003). The Navy also completed additional remediation for ACM at Building 351 and former Building 408 during 2008 in conjunction with radiological surveys at the Property (Tetra Tech EC, Inc. 2011). In summary, the Navy conducted remediation for ACM at 16 buildings at the Property between 1995 and 2011. ACM or suspected ACM remains in 12 buildings, including Buildings 303, 324, 351, 351A, 364, 365, 401, 409, 411, 419, 420, and 435.

It is DoD policy to manage ACM in a manner protective of human health and the environment, and to comply with all applicable federal, state, and local laws and regulations governing ACM hazards in or on buildings, structures, facilities, and utilities on the Property (DoD 1994). The Navy is not aware of any ACM that has been released into the environment and poses a threat to human health in the Property. Remediation of ACM by the Navy is not required in or on buildings, structures, facilities, and utilities that may be scheduled for demolition by the Transferee where (1) the

transfer document prohibits occupation of the buildings until the ACM is abated or the building is demolished; and (2) the Transferee assumes responsibility for management of any ACM in accordance with applicable laws.

3.6 LEAD-BASED PAINT

Before 1978, the use of lead-based paint (LBP) was common throughout the United States, including military installations. DoD's policy is to survey LBP hazards primarily applied to residential structures built before 1978 (DoD 1994). Navy policy does not require LBP surveys for commercial or industrial buildings unless the buildings will be reused for residential purposes.

No structures were surveyed for LBP at the Property during the EBS surveys because they were not residential structures; however, buildings on the Property are assumed to contain LBP based on their known or assumed dates of construction. Nearly all of the buildings at the Property were constructed in the 1940s and 1950s, except Building 439, which was built in 1973. The Navy is not aware of any LBP that has been released into the environment and poses a threat to human health on the Property. In addition, land use restrictions that will be carried forward for the entire area of the Property will ensure that any potential LBP in soil that may exist in the vicinity of the structures will remain beneath the durable cover and will not pose a human health threat.

The federal Residential Lead-Based Paint Hazard Reduction Act of 1992 applies only to the transfer of federal property for residential use. The Navy has not implemented an LBP abatement program because the proposed transfer of the Property will not involve use of any existing structures for residential purposes. In the event any buildings will be reused as residential property, the Transferee will be required to renovate them consistent with the regulatory requirements for abatement of LBP hazards. If buildings, structures, or facilities that contain, or are presumed to contain, LBP are to be demolished, they must be demolished in accordance with applicable local, state, and federal requirements.

Demolition of non-residential buildings and structures constructed prior to 1978 creates the possibility of lead being found in the soil as a result of such activities. With respect to any such nonresidential buildings and structures which the Transferee intends to demolish and redevelop for residential use after transfer, the Transferee may, under applicable law or regulation, be required by DTSC or other regulatory agencies to evaluate the soil adjacent to such non-residential buildings and structures for soil-lead hazards, and to abate any such hazards that may be present after demolition of such non-residential buildings and structures, and prior to occupancy of any newly constructed residential buildings.

3.7 POLYCHLORINATED BIPHENYLS

Basewide. In 1987 and 1988, 199 transformers located throughout HPNS were removed from their original locations and disposed of off site by American Environmental Management Corporation and the Navy's Public Works Department (Harding Lawson Associates [HLA] 1990). After this removal, YEI conducted a facility-wide utility study in 1988 that included a

survey of all existing on-site electrical equipment containing PCBs (YEI 1988). YEI found 83 transformers containing PCBs at less than 50 parts per million (ppm) and 169 at greater than 50 ppm. The Navy conducted a basewide site inspection of all former transformer locations in 1994 (HLA 1994); former transformer sites were designated as IR Site 51.

Under the IR Program, 78 transformer locations found by YEI to contain PCBs at concentrations greater than 50 ppm were surveyed and evaluated for leakage and contamination. The 169 transformers mentioned above were present at 78 locations (multiple transformers at some sites); all the locations were evaluated. Removals were recommended whenever evidence of a spill or release was found (PRC Environmental Management Inc., Levine-Fricke-Recon, and Uribe and Associates 1996). The IR Program also evaluated the sites of 118 transformers that were removed before 1988. These sites were visually evaluated for staining caused by leakage of oils containing PCBs. The Navy removed and disposed of 239 pieces of PCB-containing electrical equipment in 1996 (PWCSFB 1996).

Property. A total of 13 transformers, capacitors, or oil circuit breakers were associated with the Property at the following buildings: 324 (one), 351 (one), 351A (one), 402 (two), 411 (seven), and 439 (one). The EBS report listed 10 of these pieces of electrical equipment as disposed and the remaining three as abandoned. The three "abandoned" transformers remain on site, one at each of the following three buildings: 324, 351A, and 402. These transformers contain PCBs at less than 5 ppm (PWCSFB 1996). The Navy's Caretaker Site Office verified that these three transformers remain on site.

The Navy conducted a survey of industrial process equipment (IPE) at former Parcel D (including the Property) in 2002 to 2003 to identify equipment that may have contained or used oils potentially contaminated with PCBs (FWEC 2003). IPE evaluated in the survey included stand-alone equipment such as presses, punches, lathes, process pumps, and milling machines. The survey excluded elevator or door motors, cranes, intact fluorescent light ballasts, and electrical equipment such as generators, transformers, and capacitors. The IPE survey used the Toxic Substances Control Act (TSCA) "non-PCB" thresholds of 50 ppm for liquid oil and 10 micrograms per 100 square centimeters (10 $\mu g/100\ cm^2$) for wipe samples to classify the types of equipment discovered.

The IPE survey identified 32 pieces of Navy-owned IPE, including 26 pieces at the Property; 11 of the 26 pieces may have used cutting oils that could be contaminated with PCBs. These 11 pieces of IPE were located in Buildings 303 (one), 366 (nine), and 439 (one) and were sampled for analysis of PCBs. No PCBs were detected in samples for seven pieces of IPE. Samples from three pieces of equipment in Building 366 indicated PCB concentrations less than 10 $\mu g/100\ cm^2$, and these items were labeled accordingly. Samples collected from a press at Building 439 indicated PCB concentrations greater than 50 ppm, and the press was removed and disposed of off site (FWEC 2003).

In addition to Navy-owned IPE, the IPE survey evaluated 104 pieces of IPE owned by tenants at former Parcel D. A tenant provided documentation verifying that 31 pieces of IPE had been tested as PCB-free. Samples were collected from the remaining 73 pieces of tenant-owned IPE.

Samples collected from eight pieces of IPE at Buildings 302 (two) and 401 (six) contained PCB concentrations greater than the 50 ppm threshold, and tenants were notified of their responsibility to decontaminate the equipment or remove it from HPNS. Staff from the Navy Caretaker Site Office inspected Buildings 302 and 401 in March 2011 and found no tenant-owned IPE.

3.8 PESTICIDES

There is no record that an area or building on the Property was dedicated to storage of pesticides. The Property may contain pesticide residue from pesticides that have been applied in management of the Property (see Section 5.4).

4.0 ADJACENT PARCELS

The Property is surrounded by other HPNS parcels as follows: Parcels UC-1, UC-2, (and D-2, and former Parcel A just beyond to the north), Parcels C and D-1 to the east, Parcels D-1 and E to the south, and Parcel E (and to a minimal extent Parcel UC-1) to the west (Figure 2). Groundwater flows onto the Property from uncontaminated areas (former Parcel A and Parcels D-2 and UC-1) on the northern edge of the Property. The groundwater table in the shallow, A-aquifer forms a ridge beneath the Property, and groundwater generally flows away from the Property to the east, south, and west, toward San Francisco Bay. Consequently, there is minimal potential for contamination in groundwater to migrate onto the Property.

There is little potential for radioactive materials in adjacent parcels to pose a risk at the Property. The only potential exposure pathway for radiological exposure would be via inhalation of windblown dust from uncovered areas. The Navy maintains active dust control measures for all radiologically impacted areas at HPNS, including those adjacent to the Property (Tetra Tech EC, Inc. 2009). The basewide radiological contractor periodically measures the dose rate at the perimeter of all radiologically impacted areas, and these measurements indicate no migration of radiological materials. Likewise, basewide monitoring for dust does not indicate radioactive contamination in the dust.

The following subsections describe adjacent parcels and the potential for contaminants from those sites to affect the Property. Each subsection describes groundwater first, followed by soil gas. The subsections also describe any ongoing remedial actions occurring at adjacent parcels.

North – Parcels UC-1 and UC-2 (including Parcel D-2 and former Parcel A)

Former Parcel A has been transferred to the agency formerly known as SFRA, and Parcel D-2 has been found suitable for unrestricted reuse and transfer out of Navy control (Navy 2012). Therefore, there is no potential for these parcels to adversely affect the property.

No soil samples have been collected for chemical analysis (except for samples collected associated with radiological removals) at Parcels UC-1 and UC-2 because no known sources of

chemical contamination are present, based on review of historical documents and past operations. Similarly, no groundwater monitoring wells have been installed at Parcels D-2 and UC-1. The three groundwater monitoring wells at Parcel UC-2 are located at the eastern end of Parcel UC-2 (more than 1,000 feet from the Property) and are not upgradient from the Property. Therefore, it is unlikely that contaminants in groundwater could adversely affect the Property.

Soil gas has the potential to migrate from adjacent Parcels UC-1 and UC-2 into subsurface soil at the Property. Concentrations of chemicals measured in a soil gas sample collected in 2010 from Parcel UC-2 about 50 feet northeast of the northeastern corner of the Property indicated a potentially unacceptable risk to future residential receptors via vapor intrusion into a structure (Sealaska 2013). Similarly, concentrations of chemicals measured in soil gas samples collected in 2013 from Parcel UC-1 indicated a potentially unacceptable risk to future residential receptors via vapor intrusion (ERRG 2014a). Benzene, chloroform, trichloroethene, and vinyl chloride contributed the most risk. However, concentrations posed risk only slightly above the unacceptable level (excess incremental risk of 10^{-6}). It is unlikely that soil gas migration from Parcels UC-1 and UC-2 would adversely affect the Property.

Ongoing remedial actions. The remedial action at the Parcels UC-1 and UC-2 (durable covers over soil) was implemented between May and September 2012. The final RACR was submitted in February 2013 (ERRG 2013), and an addendum summarizing a soil gas survey conducted at Parcel UC-1 was submitted in September 2014 (ERRG 2014b). EPA, DTSC, and the Water Board have concurred with the final RACR (EPA 2013, DTSC 2013, Water Board 2013) and the addendum (EPA 2014c). RODs requiring no further action have been signed for former Parcel A (Navy 1995) and Parcel D-2 (Navy 2010). Former Parcel A has been transferred out of Navy control (Tetra Tech EM Inc. 2004), and Parcel D-2 has been found suitable for transfer (Navy 2012).

East – Parcels C and D-1

Groundwater flows from the Property toward Parcels C and D-1. The downgradient groundwater plume at Parcel D-1 has been remediated. Groundwater plumes at Parcel C are undergoing remediation and are more than 500 feet east and downgradient of the Property; therefore, it is unlikely that chemicals in groundwater at these adjacent parcels would adversely affect the Property based on the upgradient location of the Property.

Soil gas has the potential to migrate from adjacent Parcels C and D-1 into subsurface soil at the Property. Concentrations of chemicals measured in soil gas samples collected from the portions of Parcel D-1 immediately east of the Property in 2010 indicated a potentially unacceptable risk to future residential receptors via vapor intrusion (Sealaska 2013). Benzene and methylene chloride contributed most of the risk. However, concentrations posed risk only slightly above the unacceptable level. A parcel-wide soil gas survey has not yet been conducted at Parcel C, but is scheduled after remedial actions have been completed. Areas of known VOC contamination in soil and groundwater at Parcel C are undergoing active remediation, and these activities are expected to address any potential migration of VOCs in

soil gas from Parcel C. In addition, Dry Dock 4 separates the Property from the majority of Parcel C; the physical barrier provided by the dry dock would prevent soil gas migration from most of the VOC-contaminated areas at Parcel C. Therefore, it is unlikely that soil gas migration from Parcels C and D-1 would adversely affect the Property.

Ongoing remedial actions. Remediation at Parcels C and D-1 is in progress including the following components:

Parcel C:

Soil: Excavation and off-site disposal in selected areas (completed), soil vapor extraction (SVE) for source reduction for VOCs (in progress), and installation of parcel-wide durable covers (not yet started).

Groundwater: Treatment using ZVI or biological substrate to destroy VOCs (in progress).

Soil gas: Soil gas survey to provide data to evaluate potential vapor intrusion risks and assess the need for additional remedial activities or ICs (not yet started).

Radiologically impacted soil and structures: Decontamination of impacted structures (in progress) and excavation of impacted storm drain and sanitary sewer lines and off-site disposal (completed).

Parcel D-1:

Soil: Excavation and off-site disposal in selected areas and removal of stockpiles (completed except for two areas that await removal of the radiological screening yard for excavation) and installation of parcel-wide durable covers (not yet started).

Groundwater: Treatment using ZVI or biological substrate to destroy VOCs (completed).

Soil gas: Soil gas survey to provide data to evaluate potential vapor intrusion risks and assess the need for additional remedial activities or ICs (not yet started).

Radiologically impacted soil and structures: Decontamination of impacted structures (in progress) and excavation of impacted storm drain and sanitary sewer lines and off-site disposal (in progress).

South – Parcels D-1 and E

Groundwater flows from the Property toward Parcels D-1 and E; therefore, it is unlikely that chemicals in groundwater at these adjacent parcels could adversely affect the Property based on the upgradient location of the Property.

Soil gas has the potential to migrate from adjacent Parcels D-1 and E into subsurface soil at the Property. Concentrations of chemicals measured in two soil gas samples collected from the portion of Parcel D-1 adjacent to and south of the Property in 2010 indicated a potentially unacceptable risk to future residential receptors via vapor intrusion into a structure (Sealaska 2013). Benzene, ethylbenzene, and chloroform contributed most of the risk. However, concentrations posed risk only slightly above the unacceptable level. A parcel-wide soil gas survey has not yet been conducted at Parcel E, but is scheduled after remedial actions have been completed. Areas of known VOC contamination in soil and groundwater at Parcel E will be targeted for active remediation, and these activities are expected to address any potential migration of VOCs in soil gas from Parcel E. Therefore, it is unlikely that soil gas migration from Parcels D-1 and E would adversely affect the Property.

Ongoing remedial actions. Remediation at Parcel D-1 is described above. Except for radiological removals, remediation has not yet begun at Parcel E but will include, based on the ROD (Navy 2013): (1) removal, treatment, and containment of soil and shoreline sediment; (2) treatment and containment of groundwater; (3) removal, treatment, and containment of nonaqueous phase liquid at IR Site 3; and (4) removal and containment of radiologically impacted media.

West – Parcel E

Groundwater flows from the Property toward Parcel E; therefore, it is unlikely that chemicals in groundwater from Parcel E would affect the Property based on the upgradient location of the Property. A VOC plume exists in groundwater beneath Building 406 immediately west and downgradient of the Property; this plume is identified in the ROD for Parcel E (Navy 2013) for active remediation using injection of a biological growth medium or ZVI. It is unlikely that hazardous substances at Parcel E could adversely affect the Property based on the upgradient location of the Property relative to Parcel E.

Soil gas has the potential to migrate from adjacent Parcel E into subsurface soil at the Property. A parcel-wide soil gas survey has not yet been conducted at Parcel E. However, areas of known VOC contamination in soil and groundwater at Parcel E will be targeted for active remediation, and these activities are expected to address any potential migration of VOCs in soil gas from Parcel E. Therefore, it is unlikely that soil gas migration from Parcel E would adversely affect the Property.

Ongoing remedial actions. Plans for remediation at Parcel E are described above.

5.0 NOTIFICATIONS

This section summarizes the notifications applicable to the Property that were identified for incorporation into the transfer deed.

5.1 HAZARDOUS SUBSTANCES

Hazardous substances stored, released, or disposed of on site require a CERCLA hazardous substance notice, in accordance with Title 40 CFR Part 373. Appendix A lists the hazardous substances that were stored, released, or disposed of at the Property that require notification under CERCLA § 120(h).

5.2 ASBESTOS-CONTAINING MATERIAL

The deed will contain a notice that the Transferee is hereby informed and does acknowledge that asbestos and ACM have been found and are otherwise presumed to exist in Buildings 302, 303, 304, 323, 324, 351, 351A, 363, 366, 401, 402, 404, 407, 409, 411, 417, 418, 419, 420, 421, 422, 423, 424, 435, 436, 437, and 439. The Transferee will be responsible for managing and complying with all applicable federal, state, and local laws and regulations relating to ACM.

5.3 LEAD-BASED PAINT

The Transferee is hereby notified that LBP is presumed present in nonresidential buildings, structures, or facilities within the parcel proposed for transfer based on the age of construction (that is, the building or structure was constructed before the Consumer Product Safety Commission's 1978 ban on LBP for residential use). The Property contains numerous buildings known or presumed to have been built before 1978 that may contain LBP. Nearly all of the buildings at the Property were constructed in the 1940s and 1950s, except Building 439, which was built in 1973. Lead (from LBP) may exist in soil surrounding these buildings. LBP may have been stripped from the buildings through normal weathering. The deed will contain a notice stating that all buildings within the Property are presumed to contain LBP because of their age. Lead from paint, paint chips, and dust can pose health hazards if not managed properly.

With respect to any such nonresidential buildings, structures, or facilities which the Transferee intends to demolish and redevelop, the Transferee may, under applicable law or regulation, be required by DTSC or other regulatory agencies to evaluate the soil adjacent to these nonresidential buildings, structures, or facilities for soil-lead hazards, and to abate any such hazards that may be present, after demolition and prior to construction of any structures.

5.4 PESTICIDES

NOTIFICATION OF PESTICIDE USE: The Property may contain pesticide residue from pesticides that have been applied in the management of the Property. The Navy knows of no use of any registered pesticide in a manner inconsistent with its labeling and believes that all applications were made in accordance with the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA — 7 U.S.C. § 136, et seq.), its implementing regulations, and according to the labeling provided with such substances. It is Navy's position that it shall have no obligation under the covenants provided pursuant to § 120(h)(3)(A)(ii) of the Comprehensive Environmental Response, Compensation and Liability Act of 1980, 42 U.S.C.

§ 9620(h)(3)(A)(ii), for the remediation of any registered pesticides applied in a manner consistent with its labeling and in accordance with FIFRA.

6.0 RESTRICTIONS

CERCLA Institutional Controls. In accordance with the ROD prepared pursuant to CERCLA for the Property (Navy 2009), ICs will be implemented to prevent exposure to COCs in soil and groundwater on the Property. These restrictions will be incorporated into two separate legal instruments: (1) quitclaim deed(s) between the Navy and the Transferee; and (2) CRUP(s) between the Navy and DTSC, with EPA as a third-party beneficiary. The ICs will apply to any and all property within the ARICs (Figure 4).

All of the Property will be subject to ICs related to soil and groundwater. In addition, ICs have been selected in the ROD (Navy 2009) to address potential vapor intrusion from VOCs in soil vapor and groundwater. Risk to human health may exist from potential intrusion of VOC vapors into structures built at the Property in certain areas, as designated on Figure 4. Consequently, these areas are included in the ARICs for VOC vapors at the Property. If enclosed structures are to be constructed on the Property in the ARICs subject to potential vapor intrusion, engineering controls or other design alternatives to assure vapors are reduced to acceptable levels must be implemented. In addition, the requirement for engineering controls or other design alternatives will be enforced through a recorded deed restriction and a restrictive covenant between DTSC and the Navy.

The IC land use restrictions for the Property are as follows:

1. The following activities are prohibited throughout the Property:
    a. Growing vegetables, fruits, or any edible items in native soil for human consumption. Plants for human consumption may be grown if they are planted in raised beds (above the CERCLA-approved cover) containing non-native soil. Trees producing edible fruit (including trees producing edible nuts) may also be planted provided they are grown in containers with a bottom that prevents the roots from penetrating the native soil.
    b. Use of groundwater.
2. The portions of the Property designated as the Shipyard South Multi-Use District in the SFRA's Hunters Point Shipyard Redevelopment Plan, as amended in 2010 (SFRA 2010), which were designated for open space, educational/cultural, and industrial land uses in SFRA's former 1997 redevelopment plan, as adopted in 1997 (SFRA 1997) (see ARIC related to residential use on Figure 4) are restricted for any of the following uses unless approved by the FFA signatories in accordance with the quitclaim deed, CRUP, and risk management plan for each parcel:
    a. A residence, including any mobile home or factory-built housing, constructed or installed for use as residential human habitation,

b. A hospital for humans,

c. A school for persons under 21 years of age, or

d. A day care facility for children.

3. The following activities are restricted throughout the Property unless prior written approval for these activities is granted by the FFA signatories:

a. "Land disturbing activity," which includes, but is not limited to: (1) excavation of soil, (2) construction of roads, utilities, facilities, structures, and appurtenances of any kind, (3) demolition or removal of "hardscape" (for example, concrete roadways, parking lots, foundations, and sidewalks), (4) any activity that involves movement of soil to the surface from below the surface of the land, and (5) any other activity that causes or facilitates movement of known contaminated groundwater. Land-disturbing activities are not intended to include placement of additional clean, imported fill on top of the soil cover that the Navy has constructed at the Property.

b. Alteration, disturbance, or removal of (i) any component of a response or cleanup action (including, but not limited to revetment walls and shoreline protection and soil cover/containment systems); or (ii) groundwater extraction, injection, and monitoring wells and associated piping and equipment; or (iii) associated utilities.

c. Extraction of groundwater and installation of new groundwater wells, with the exception of construction, operation, and maintenance responses or remedial actions as required or necessary under the CERCLA remedy.

d. Removal of or damage to security features of a CERCLA remedy or monitoring device (for example, locks on monitoring wells, survey monuments, fencing, signs, or monitoring equipment and associated pipelines and appurtenances).

e. Construction of enclosed structures. Risk to human health may exist from potential intrusion of VOC vapors into structures built at the Property. Consequently, these areas are included in the ARICs for VOC vapors (see Figure 4). Prior to construction of any new enclosed structure within a VOC ARIC, the Owner shall obtain approval from the FFA signatories of the vapor mitigation engineering controls or design alternatives to be incorporated in that structure. A reduction in potential risk can be achieved through engineering controls or other design alternatives that meet the specifications set forth in DTSC's "Final Guidance for the Evaluation and Mitigation of Subsurface Vapor Intrusion to Indoor Air" and "Final Vapor Intrusion Mitigation Advisory, Revision 1," both dated October 2011 (DTSC 2011a, 2011b). Prior to occupation of enclosed structures with a VOC ARIC, the Owner shall obtain FFA signatory approval that any necessary engineering controls or design alternatives have been properly constructed and are operating successfully.

The IC objectives will be met by access controls until the time of transfer.

7.0 COVENANTS

The deed will contain the following covenants.

All Remedial Action Has Been Taken. The deed will include a covenant by the United States, made pursuant to the provisions of CERCLA § 120(h)(3)(A)(ii)(I) and as set forth in DoD Instruction 4165.72. The covenant will warrant that all remedial action necessary to protect human health and the environment with respect to any hazardous substance remaining on the property has been taken before the date of this deed.

Additional Remediation Obligation. The deed will also include a covenant by the United States, made pursuant to the provisions of CERCLA § 120(h)(3)(A)(ii)(II) and as set forth in DoD Instruction 4165.72, warranting that any remedial action found to be necessary after the date of this deed shall be conducted by the United States.

Right of Access. The deed will contain a covenant by the Transferee, on behalf of itself, its successors and assigns, granting to the United States right of access to the property, pursuant to the provisions of CERCLA § 120(h)(3)(A)(iii) and as set forth in DoD Instruction 4165.72, in any case in which any remedial or corrective action is found to be necessary after the date of such transfer.

Asbestos-Containing Material. The Transferee covenants and agrees that in its use of the Property, including but not limited to demolition or handling of buildings, structures, facilities, or utilities containing ACM, it will be responsible for managing ACM and for complying with all applicable federal, state, and local laws relating to ACM.

The Transferee acknowledges that the Transferor assumes no liability for costs of any kind or for damages for personal injury, illness, disability, or death to the Transferee, or to any other person, including members of the general public, arising from or incident to the purchase, transportation, removal, handling, use, disposition, or activity causing or leading to contact of any kind whatsoever with ACM in the improvements including, but not limited to, the buildings, structures, facilities, and utilities (both underground and aboveground) on the Property, arising after the conveyance of the Property from the Transferor to the Transferee, whether the Transferee has properly warned, or failed to properly warn, the persons injured.

If ACM within a building, structure, or facility on the Property may pose a threat to human health within the building, structure, or facility (that is, friable, accessible and damaged [FAD] ACM) at the time of transfer, the Transferee shall prohibit occupation of the building, structure, or facility until the ACM is abated or the building, structure, or facility is demolished by the Transferee in accordance with all applicable local, state, and federal laws and other requirements relating to asbestos or ACM.

Lead-Based Paint. The deed will contain a covenant that the Transferee, in its use and occupancy of the Property, including but not limited to demolition of buildings, structures, or facilities, and identification and/or evaluation of any LBP hazards, shall be responsible for managing LBP and LBP hazards in accordance with applicable federal, state, and local laws and other requirements relating to LBP and LBP hazards. Furthermore, the Transferee will prohibit residential occupancy and use of buildings and structures, or portions thereof, prior to identification and evaluation of any LBP hazards, and abatement of any hazards identified as required.

8.0 FINDING OF SUITABILITY TO TRANSFER

Based on the information contained in this FOST and the notices, restrictions, and covenants that will be contained in the deed, the Property is suitable for transfer.

Signature: _____ Date: _____

Mr. Lawrence Lansdale, PE
By direction of the Director
BRAC Program Management Office

9.0 REFERENCES

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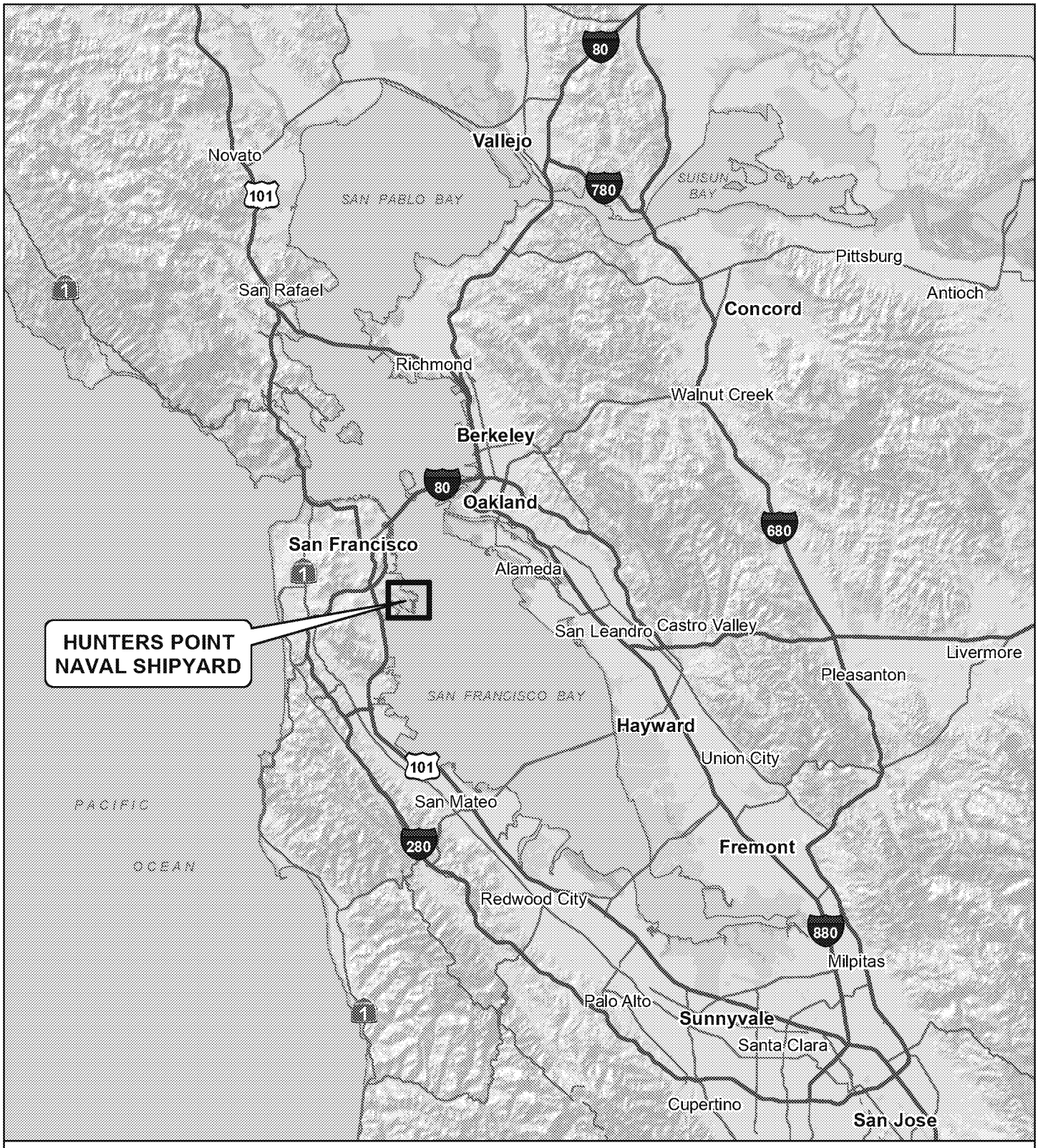
FIGURES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Castro Valley
Livermore
Pleasanton
SAN FRANCISCO BAY
Hayward
Union City
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San Mateo
PACIFIC
OCEAN
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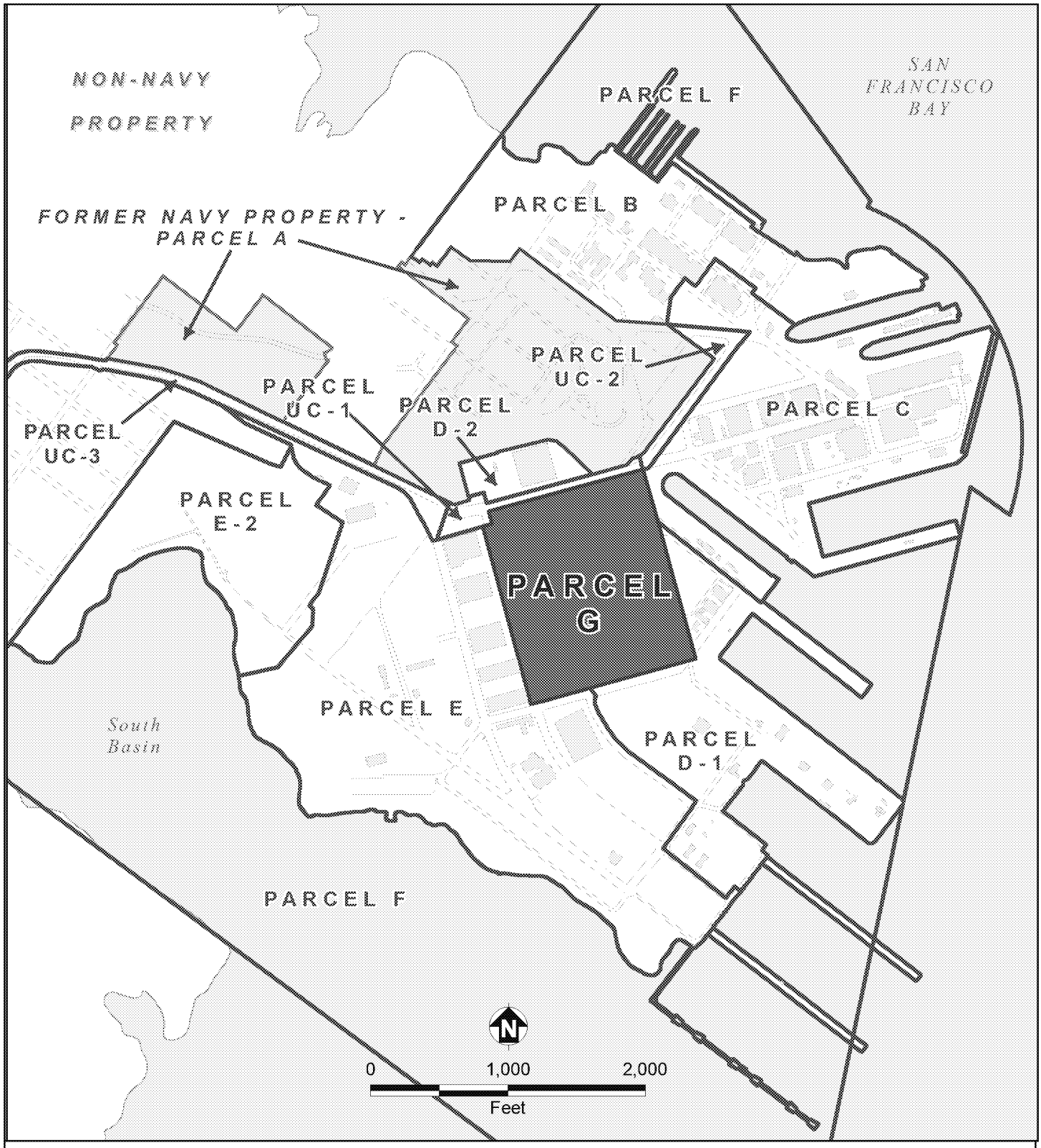
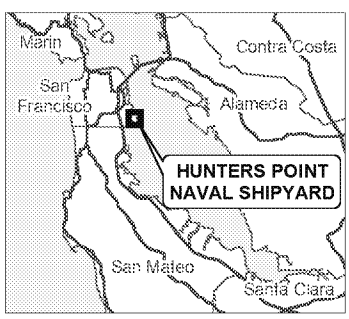
Fremont
Redwood City
880
Milpitas
Palo Alto
Sunnyvale
Santa Clara
Cupertino
San Jose
N
0
7.5
15
Miles
IR Installation Restoration
Hunters Point Naval Shipyard, San Francisco, California
Department of the Navy, BRAC PMO West, San Diego, California
FIGURE 1
HUNTERS POINT NAVAL SHIPYARD
REGIONAL LOCATION
FOST for Parcel G
3/9/2015 C:\Hunters Point\Projects\Parcel_G\FOST\mxd\MKH_HPS_Location_Map.mxd TIEM-OAK michelle.handley





Parcel G Boundary
Other Parcel Boundary
Former Navy Property - Parcel A
Non-Navy Property
Building
Road Edge

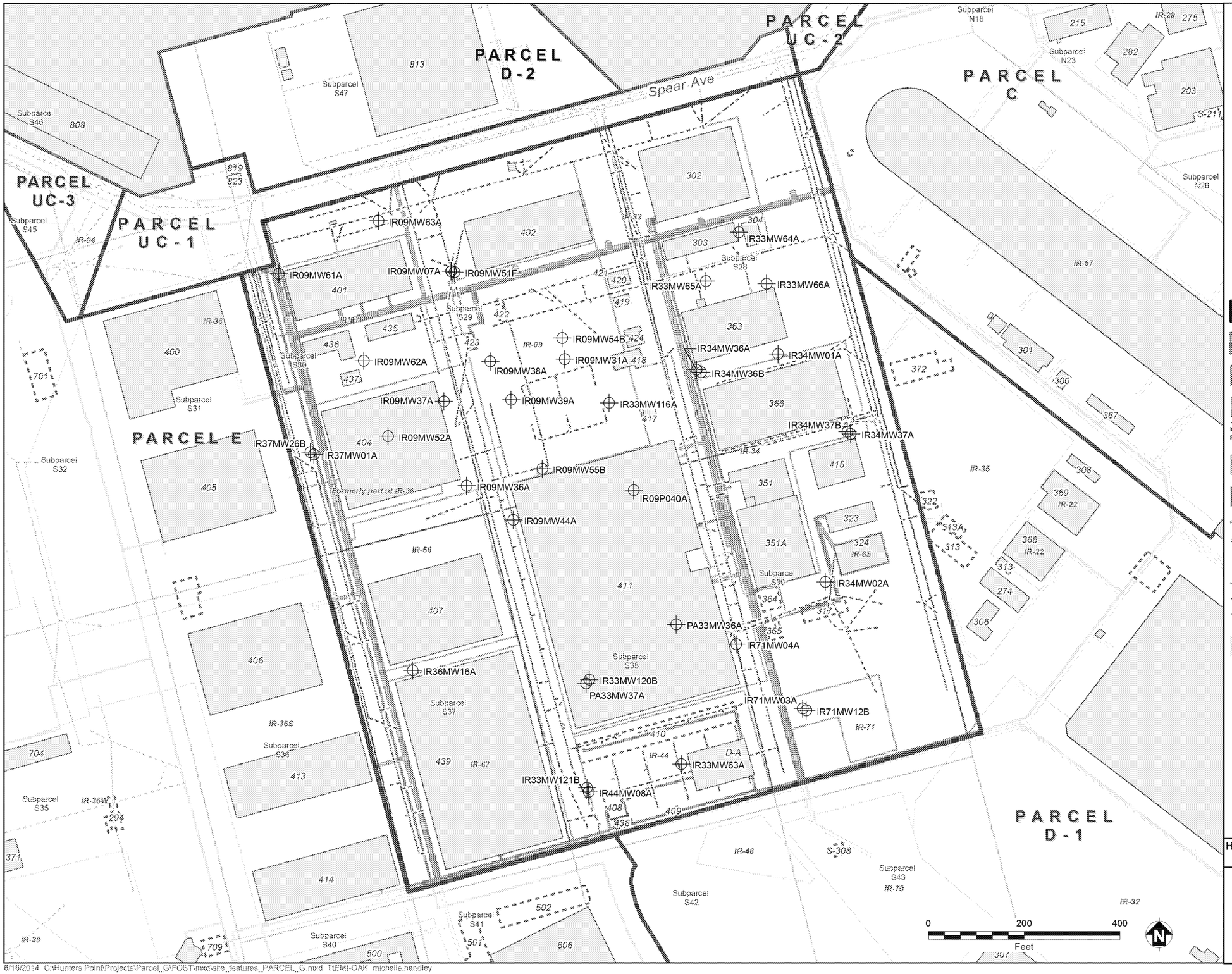
Hunters Point Naval Shipyard, San Francisco, California
Department of the Navy, BRAC PMO West, San Diego, California

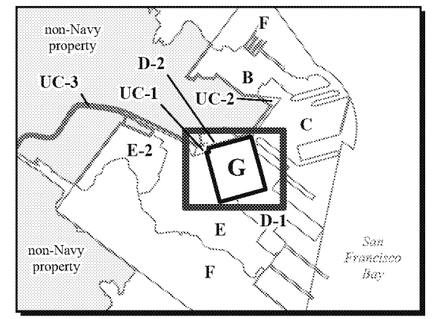
FIGURE 2

PROPERTY LOCATION

FOST for Parcel G

5/19/2014 C:\Hunters Point\Projects\Parcel_G\FOST\mxd\Site_Location_Map.mxd TtEMI-OAK Michelle





Hunters Point Naval Shipyard Parcels

- Groundwater Monitoring Well
- Parcel G Boundary
- Other Parcel Boundary
- Former Navy Property - Parcel
- Building, Existing
- Building, Demolished
- IR Boundary (IR-51, Former Transformer Locations not Shown)
- EBS Subparcel Boundary
- Gas Line
- Steam Line (SI-45)

Sanitary/Storm Sewer Lines (IR-50)

- Currently In Place
- Removed
- Not Found

- San Francisco Bay

EBS Environmental Baseline Survey
IR Installation Restoration
SI Site Inspection

Hunters Point Naval Shipyard, San Francisco, California
Department of the Navy, BRAC PMO West, San Diego, California

FIGURE 3
SITE FEATURES

FOST for Parcel G

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PARCEL D-2

PARCEL UC-2

PARCEL UC-3

PARCEL UC-1

PARCEL E

PARCEL C

PARCEL D-1

Spear Avenue

608 813 819 823 807 702 701 400 405 401 402 302 303 304 421 420 419 422 423 435 436 437 424 418 363 404 417 368 (351B) 415 351 351A 323 324 411 407 406 439 410 D-A 408 438 409 704 413 294 371 414 502 501 606 709 500 S-308 215 275 282 203 372 301 300 367 308 369 322 313A 313 368 313 274 306 307

non-Navy property

UC-3 UC-1 UC-2 D-2 B F C E-2 G D-1 E F

non-Navy property

San Francisco Bay

Hunters Point Naval Shipyard Parcels

ARIC Related to VOC Vapors

ARIC Related to Residential Use

Area of All Other Restrictions

Parcel G Boundary

Other Parcel Boundary

Former Navy Property - Parcel A

Building, Existing

Building, Demolished

San Francisco Bay

ARIC Area Requiring Institutional Controls
VOC Volatile Organic Compound

0 200 400
Feet

TtEC A Joint Venture

Hunters Point Naval Shipyard, San Francisco, California
Department of the Navy, BRAC PMO West, San Diego, California

FIGURE 4
RESTRICTIONS

FOST for Parcel G

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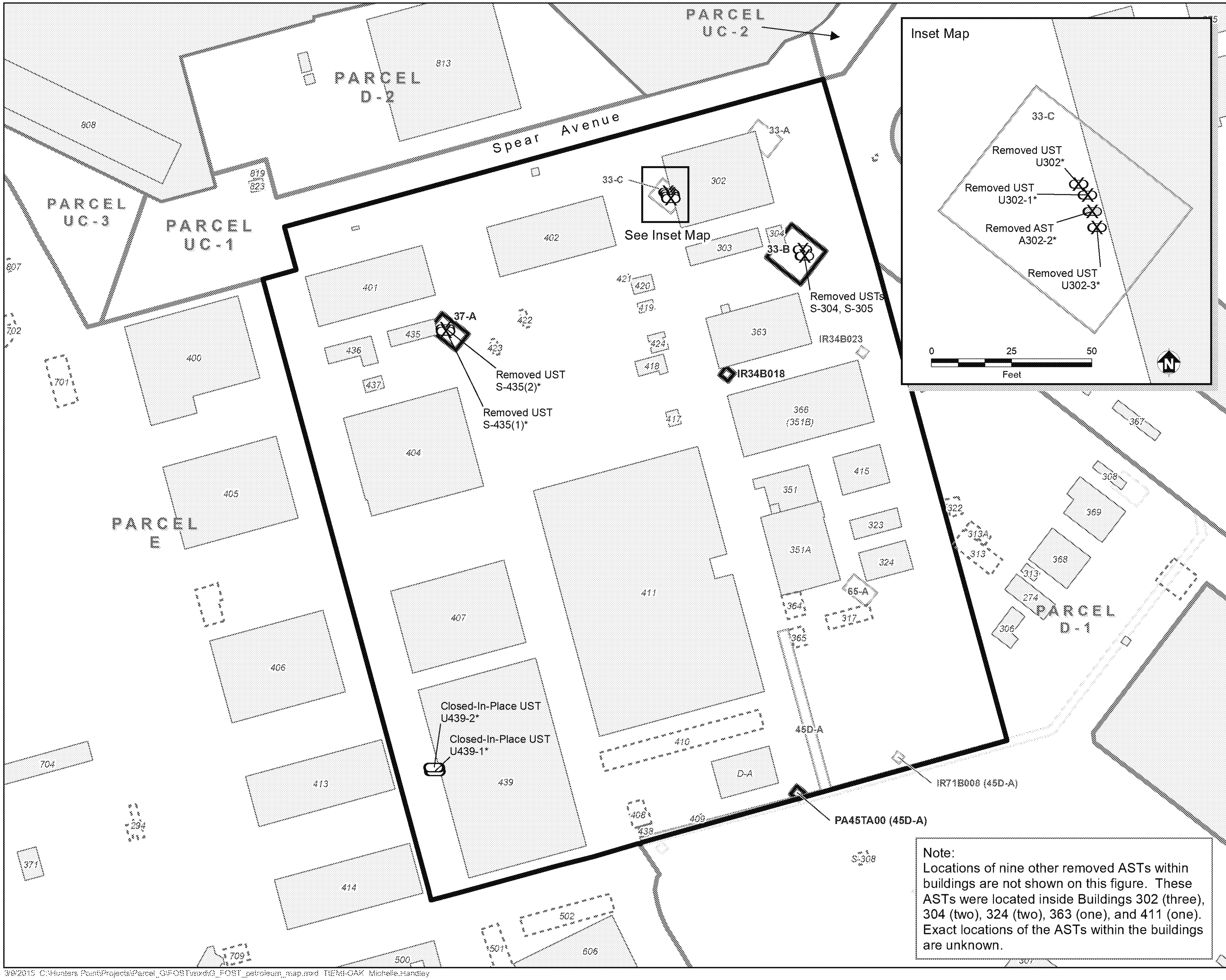
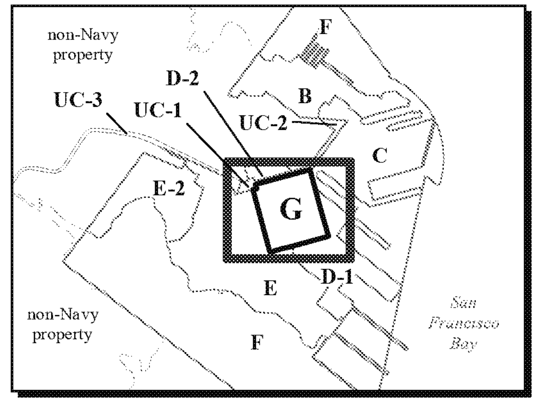

PARCEL D-2
PARCEL UC-2
PARCEL UC-3
PARCEL UC-1
PARCEL E
PARCEL D-1
Spear Avenue
33-A
33-C
See Inset Map
33-B
Removed USTs S-304, S-305
37-A
Removed UST S-435(2)*
Removed UST S-435(1)*
IR34B023
IR34B018
65-A
45D-A
Closed-In-Place UST U439-2*
Closed-In-Place UST U439-1*
IR71B008 (45D-A)
PA45TA00 (45D-A)
Inset Map
33-C
Removed UST U302*
Removed UST U302-1*
Removed AST A302-2*
Removed UST U302-3*
0 25 50
Feet
Note:
Locations of nine other removed ASTs within buildings are not shown on this figure. These ASTs were located inside Buildings 302 (three), 304 (two), 324 (two), 363 (one), and 411 (one). Exact locations of the ASTs within the buildings are unknown.
3/9/2015 C:\Hunters Point\Projects\Parcel_G\FOST\mxd\G_FOST_petroleum_map.mxd TtEMI-OAK Michelle.Handley



Hunters Point Naval Shipyard Parcels

- Underground Storage Tank, Closed-In-Place
- Underground Storage Tank, Removed
- Aboveground Storage Tank, Removed
- TPH AOC, No Further Action Required
- Commingled AOC, No Further Action Required
- Parcel G Boundary
- Other Parcel Boundary
- Former Navy Property - Parcel A
- Building, Existing
- Building, Demolished
- San Francisco Bay

Notes:

*	Non-petroleum AST/UST
AOC	Area of Concern
AST	Aboveground Storage Tank
TPH	Total Petroleum Hydrocarbon
UST	Underground Storage Tank

0 200 400
Feet

Hunters Point Naval Shipyard, San Francisco, California
Department of the Navy, BRAC PMO West, San Diego, California

FIGURE 5
PETROLEUM AREAS OF CONCERN

FOST for Parcel G

ED_006787_00006363-00036

TABLE

TABLE 1: ENVIRONMENTAL REQUIREMENTS

Finding of Suitability to Transfer for Parcel G
Hunters Point Naval Shipyard, San Francisco, California

Applicable to the Parcel	Environmental Requirements							
	Presence of Hazardous Substances	CERCLA	Presence of Petroleum Products and Derivatives	UST and AST	Munitions and Explosives of Concern	Asbestos-Containing Material	Lead-Based Paint	Polychlorinated Biphenyls
Parcel G	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes

Notes:

AST Aboveground storage tank
CERCLA Comprehensive Environmental Response, Compensation, and Liability Act
UST Underground storage tank

APPENDIX A
SUMMARY OF HAZARDOUS SUBSTANCES STORED, DISPOSED OF, OR RELEASED

TABLE A-1. SUMMARY OF HAZARDOUS SUBSTANCES STORED, DISPOSED OF, OR RELEASED

Finding of Suitability for Transfer for Parcel G, Hunters Point Naval Shipyard, San Francisco, California

Parcel	Medium	Hazardous Substance[a,b]	CAS Number	Regulatory Synonym	RCRA Waste Code	Reportable Quantity	Estimated Quantity	Dates of Storage, Disposal or Release (if known)	Stored (S), Disposed of (D) or Released (R)	Action Taken
G	GROUNDWATER	1,1,1-TRICHLOROETHANE	71-55-6	ETHANE, 1,1,1-TRICHLORO; METHYL CHLOROFORM	U226	454 kg	UNKNOWN	UNKNOWN	R	Groundwater Treatability Study (2008-2009); Final ROD for Parcel G (2009).
G	GROUNDWATER	1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	76-13-1	NONE	NA	2270 kg	UNKNOWN	UNKNOWN	R	
G	GROUNDWATER	1,1,2-TRICHLOROETHANE	79-00-5	ETHANE, 1,1,2-TRICHLORO-	U227	45.4 kg	UNKNOWN	UNKNOWN	R	
G	GROUNDWATER	1,1-DICHLOROETHANE	75-34-3	ETHANE, 1,1-DICHLORO-; ETHYLIDENE DICHLORIDE	U076	454 kg	UNKNOWN	UNKNOWN	R	
G	GROUNDWATER	1,2-DICHLOROETHANE	107-06-2	ETHANE, 1-2-DICHLORO-; ETHYLENE DICHLORIDE	U077	45.4 kg	UNKNOWN	UNKNOWN	R	
G	GROUNDWATER	1,2-DICHLOROETHENE (TOTAL)	540-59-01	NONE	NA	NA	UNKNOWN	UNKNOWN	R	
G	GROUNDWATER	2,4-DIMETHYLPHENOL	105-67-9	PHENOL, 2,4-DIMETHYL-	U101	45.4 kg	UNKNOWN	UNKNOWN	R	
G	GROUNDWATER	2-HEXANONE	591-78-6	NONE	NA	NA	UNKNOWN	UNKNOWN	R	
G	GROUNDWATER	2-METHYLNAPHTHALENE	91-57-6	BETA-METHYLNAPTHALENE; BETA-METHYL NAPHTHALENE; 2-METHYLNAPTHALENE; METHYL-2-NAPHTHALENE	NA	NA	UNKNOWN	UNKNOWN	R	
G	GROUNDWATER	4-METHYL-2-PENTANONE	108-10-1	HEXONE; METHYL ISOBUTYL KETONE	U161	2270 kg	UNKNOWN	UNKNOWN	R	
G	GROUNDWATER	4-METHYLPHENOL	1319-77-3	CRESOL (CRESYLIC ACID)	U052	45.4 kg	UNKNOWN	UNKNOWN	R	
G	GROUNDWATER	ACENAPHTHYLENE	208-96-8	NONE	NA	2270 kg	UNKNOWN	UNKNOWN	R	
G	GROUNDWATER	ACETONE	67-64-1	2-PROPANONE	U002	2270 kg	UNKNOWN	UNKNOWN	R	
G	GROUNDWATER	ALUMINUM	7429-90-5	NONE	NA	NA	UNKNOWN	UNKNOWN	R	
G	GROUNDWATER	ANTHRACENE	120-12-7	NONE	NA	2270 kg	UNKNOWN	UNKNOWN	R	
G	GROUNDWATER	ANTIMONY	7440-36-0	NONE	NA	NA	UNKNOWN	UNKNOWN	R	
G	GROUNDWATER	ARSENIC	7440-38-2	NONE	D004	0.454 kg	UNKNOWN	UNKNOWN	R	
G	GROUNDWATER	BARIUM	7440-39-3	NONE	D005	454 kg	UNKNOWN	UNKNOWN	R	
G	GROUNDWATER	BENZENE	71-43-2	NONE	U019	4.54 kg	UNKNOWN	UNKNOWN	R	
G	GROUNDWATER	BENZO(B)FLUORANTHENE	205-99-2	NONE	NA	0.454 kg	UNKNOWN	UNKNOWN	R	
G	GROUNDWATER	BERYLLIUM	7440-41-7	BERYLLIUM POWDER	P015	4.54 kg	UNKNOWN	UNKNOWN	R	
G	GROUNDWATER	BIS(2-ETHYLHEXYL)PHTHALATE	117-81-7	1,2-BENZENEDICARBOXYLIC ACID; BIS(2-ETHYLHEXYL)ESTER; DEHP; DIETHYLHEXYL PHTHALATE	U028	45.4 kg	UNKNOWN	UNKNOWN	R	
G	GROUNDWATER	BROMOMETHANE	74-83-9	METHANE, BROMO-; METHYL BROMIDE	U029	454 kg	UNKNOWN	UNKNOWN	R	
G	GROUNDWATER	CADMIUM	7440-43-9	NONE	D006	4.54 kg	UNKNOWN	UNKNOWN	R	
G	GROUNDWATER	CARBON DISULFIDE	75-15-0	NONE	P022	45.4 kg	UNKNOWN	UNKNOWN	R	
G	GROUNDWATER	CARBON TETRACHLORIDE	56-23-5	METHANE, TETRACHLORO	U211	4.54 kg	UNKNOWN	UNKNOWN	R	

TABLE A-1. SUMMARY OF HAZARDOUS SUBSTANCES STORED, DISPOSED OF, OR RELEASED

Finding of Suitability for Transfer for Parcel G, Hunters Point Naval Shipyard, San Francisco, California

Parcel	Medium	Hazardous Substance[a,b]	CAS Number	Regulatory Synonym	RCRA Waste Code	Reportable Quantity	Estimated Quantity	Dates of Storage, Disposal or Release (if known)	Stored (S), Disposed of (D) or Released (R)	Action Taken
G	GROUNDWATER	CHLOROFORM	67-66-3	METHANE, TRICHLORO-	U044	4.54 kg	UNKNOWN	UNKNOWN	R	Groundwater Treatability Study (2008-2009); Final ROD for Parcel G (2009).
G	GROUNDWATER	CHLOROMETHANE	74-87-3	METHANE, CHLORO-; METHYL CHLORIDE	U045	45.4 kg	UNKNOWN	UNKNOWN	R	
G	GROUNDWATER	CHROMIUM	7440-47-3	NONE	NA	2270 kg	UNKNOWN	UNKNOWN	R	
G	GROUNDWATER	CHROMIUM VI	NA	NONE	NA	NA	UNKNOWN	UNKNOWN	R	
G	GROUNDWATER	CIS-1,2-DICHLOROETHENE	156-60-5	ETHENE, 1,2-DICHLORO (E); 1,2-DICHLOROETHYLENE	U079	454 kg	UNKNOWN	UNKNOWN	R	
G	GROUNDWATER	COBALT	7440-48-4	NONE	NA	NA	UNKNOWN	UNKNOWN	R	
G	GROUNDWATER	COPPER	7440-50-8	NONE	NA	2270 kg	UNKNOWN	UNKNOWN	R	
G	GROUNDWATER	CYANIDE	NA	CYANIDE COMPOUNDS	P030	4.54 kg	UNKNOWN	UNKNOWN	R	
G	GROUNDWATER	DIBENZOFURAN	132-64-9	NONE	NA	45.4 kg	UNKNOWN	UNKNOWN	R	
G	GROUNDWATER	ETHYLBENZENE	100-41-4	NONE	NA	454 kg	UNKNOWN	UNKNOWN	R	
G	GROUNDWATER	FLUORENE	86-73-7	NONE	NA	2270 kg	UNKNOWN	UNKNOWN	R	
G	GROUNDWATER	HEXACHLOROETHANE	67-72-1	ETHANE, HEXACHLORO-	U131	45.4 kg	UNKNOWN	UNKNOWN	R	
G	GROUNDWATER	IRON	7439-89-6	NONE	NA	NA	UNKNOWN	UNKNOWN	R	
G	GROUNDWATER	LEAD	7439-92-1	NONE	NA	4.54 kg	UNKNOWN	UNKNOWN	R	
G	GROUNDWATER	MANGANESE	7439-96-5	NONE	NA	NA	UNKNOWN	UNKNOWN	R	
G	GROUNDWATER	MERCURY	7439-97-6	NONE	U151	0.454 kg	UNKNOWN	UNKNOWN	R	
G	GROUNDWATER	METHYLENE CHLORIDE	75-09-2	DICHLOROMETHANE; METHANE, DICHLORO-	U080	454 kg	UNKNOWN	UNKNOWN	R	
G	GROUNDWATER	MOLYBDENUM	7439-98-7	NONE	NA	NA	UNKNOWN	UNKNOWN	R	
G	GROUNDWATER	NAPHTHALENE	91-20-3	NONE	U165	45.4 kg	UNKNOWN	UNKNOWN	R	
G	GROUNDWATER	NICKEL	7440-02-0	NONE	NA	45.4 kg	UNKNOWN	UNKNOWN	R	
G	GROUNDWATER	PHENOL	108-95-2	NONE	U188	454 kg	UNKNOWN	UNKNOWN	R	
G	GROUNDWATER	SELENIUM	7782-49-2	NONE	NA	45.4 kg	UNKNOWN	UNKNOWN	R	
G	GROUNDWATER	SILVER	7440-22-4	NONE	NA	454 kg	UNKNOWN	UNKNOWN	R	
G	GROUNDWATER	TERT-BUTYL METHYL ETHER	1634-04-4	METHYL TERT-BUTYL ETHER	NA	454 kg	UNKNOWN	UNKNOWN	R	
G	GROUNDWATER	TETRACHLOROETHENE	127-18-4	ETHENE, TETRACHLORO-; PERCHLOROETHYLENE; TETRACHLOROETHYLENE	U210	45.4 kg	UNKNOWN	UNKNOWN	R	
G	GROUNDWATER	THALLIUM	7440-28-0	NONE	NA	454 kg	UNKNOWN	UNKNOWN	R	
G	GROUNDWATER	TOLUENE	108-88-3	BENZENE, METHYL-	U220	454 kg	UNKNOWN	UNKNOWN	R	
G	GROUNDWATER	TOTAL TCDF	51207-31-9	NONE	NA	45.4 kg	UNKNOWN	UNKNOWN	R	

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Finding of Suitability for Transfer for Parcel G, Hunters Point Naval Shipyard, San Francisco, California

Parcel	Medium	Hazardous Substance[a,b]	CAS Number	Regulatory Synonym	RCRA Waste Code	Reportable Quantity	Estimated Quantity	Dates of Storage, Disposal or Release (if known)	Stored (S), Disposed of (D) or Released (R)	Action Taken
G	GROUNDWATER	TRANS-1,2-DICHLOROETHENE	156-60-5	ETHENE, 1,2-DICHLORO (E); 1,2-DICHLOROETHYLENE	U079	454 kg	UNKNOWN	UNKNOWN	R	Groundwater Treatability Study (2008-2009); Final ROD for Parcel G (2009).
G	GROUNDWATER	TRICHLOROETHENE	79-01-6	ETHENE, TRICHLORO-; TRICHLOROETHYLENE	U228	45.4 kg	UNKNOWN	UNKNOWN	R	
G	GROUNDWATER	TRICHLOROFLUOROMETHANE	75-69-4	METHANE, TRICHLOROFLUORO-	U121	2270 kg	UNKNOWN	UNKNOWN	R	
G	GROUNDWATER	VANADIUM	7440-62-2	NONE	NA	NA	UNKNOWN	UNKNOWN	R	
G	GROUNDWATER	XYLENE (TOTAL)	1330-20-7	BENZENE, DIMETHYL-	U239	45.4 kg	UNKNOWN	UNKNOWN	R	
G	GROUNDWATER	ZINC	7440-66-6	NONE	NA	454 kg	UNKNOWN	UNKNOWN	R	
G	SOIL	1,1,1-TRICHLOROETHANE	71-55-6	ETHANE, 1,1,1-TRICHLORO; METHYL CHLOROFORM	U226	454 kg	UNKNOWN	UNKNOWN	R	Pickling and Plate Yard Removal Action (1994-1996); Exploratory Excavation Removal Action at IR-33, IR-37 and IR-70 (1996-1997); Storm Drain Sediment Removal Action (1996-1997); Soil TCRA at IR-09, IR-37 and IR-65 (2000-2001); Industrial Process Equipment Survey, Sampling, Decontamination and Waste Consolidation Action (2002); Storm Drain and Sanitary Sewer Removal Action (2007-2011); Final ROD for Parcel G (2009), Remedial Action (2013).
G	SOIL	1,1,2,2-TETRACHLOROETHANE	79-34-5	ETHANE, 1,1,2,2-TETRACHLORO-	U209	45.4 kg	UNKNOWN	UNKNOWN	R	
G	SOIL	1,1,2-TRICHLOROETHANE	79-00-5	ETHANE, 1,1,2-TRICHLORO-	U227	45.4 kg	UNKNOWN	UNKNOWN	R	
G	SOIL	1,1-DICHLOROETHANE	75-34-3	ETHANE, 1,1-DICHLORO-; ETHYLIDENE DICHLORIDE	U076	454 kg	UNKNOWN	UNKNOWN	R	
G	SOIL	1,1-DICHLOROETHENE	75-35-4	ETHENE, 1,1-DICHLORO-; VINYLIDENE CHLORIDE; 1-1-DICHLOROETHYLENE	U078	45.4 kg	UNKNOWN	UNKNOWN	R	
G	SOIL	1,2,4-TRICHLOROBENZENE	120-82-1	NONE	NA	45.4 kg	UNKNOWN	UNKNOWN	R	
G	SOIL	1,2-DICHLOROETHANE	107-06-2	ETHANE, 1-2-DICHLORO-; ETHYLENE DICHLORIDE	U077	45.4 kg	UNKNOWN	UNKNOWN	R	
G	SOIL	1,2-DICHLOROETHENE (TOTAL)	540-59-01	NONE	NA	NA	UNKNOWN	UNKNOWN	R	
G	SOIL	2,4-DIMETHYLPHENOL	105-67-9	PHENOL, 2,4-DIMETHYL-	U101	45.4 kg	UNKNOWN	UNKNOWN	R	
G	SOIL	2-BUTANONE	78-93-3	MEK; METHYL ETHYL KETONE	U159	2270 kg	UNKNOWN	UNKNOWN	R	
G	SOIL	2-METHYLNAPHTHALENE	91-57-6	BETA-METHYLNAPTHALENE; BETA-METHYL NAPHTHALENE; 2-METHYLNAPTHALENE; METHYL-2-NAPHTHALENE	NA	NA	UNKNOWN	UNKNOWN	R	
G	SOIL	2-METHYLPHENOL	95-48-7	O-CRESOL	NA	45.4 kg	UNKNOWN	UNKNOWN	R	
G	SOIL	4,4'-DDD	72-54-8	BENZENE, 1,1'-(2,2-DICHLOROETHYLIDENE)BIS[4-CHLORO]-; DDD; TDE	U060	0.454 kg	UNKNOWN	UNKNOWN	R	
G	SOIL	4,4'-DDE	72-55-9	DDE	NA	0.454 kg	UNKNOWN	UNKNOWN	R	
G	SOIL	4,4'-DDT	50-29-3	BENZENE, 1,1'-(2,2,2-TRICHLOROETHYLIDENE)BIS[4-CHLORO-]; DDT	U061	0.454 kg	UNKNOWN	UNKNOWN	R	
G	SOIL	4-METHYL-2-PENTANONE	108-10-1	HEXONE; METHYL ISOBUTYL KETONE	U161	2270 kg	UNKNOWN	UNKNOWN	R	
G	SOIL	4-METHYLPHENOL	1319-77-3	CRESOL (CRESYLIC ACID)	U052	45.4 kg	UNKNOWN	UNKNOWN	R	
G	SOIL	ACENAPHTHENE	83-32-9	NONE	NA	45.4 kg	UNKNOWN	UNKNOWN	R	

TABLE A-1. SUMMARY OF HAZARDOUS SUBSTANCES STORED, DISPOSED OF, OR RELEASED

Finding of Suitability for Transfer for Parcel G, Hunters Point Naval Shipyard, San Francisco, California

Parcel	Medium	Hazardous Substance[a,b]	CAS Number	Regulatory Synonym	RCRA Waste Code	Reportable Quantity	Estimated Quantity	Dates of Storage, Disposal or Release (if known)	Stored (S), Disposed of (D) or Released (R)	Action Taken
G	SOIL	ACETONE	67-64-1	2-PROPANONE	U002	2270 kg	UNKNOWN	UNKNOWN	R	Pickling and Plate Yard Removal Action (1994-1996); Exploratory Excavation Removal Action at IR-33, IR-37 and IR-70 (1996-1997); Storm Drain Sediment Removal Action (1996-1997); Soil TCRA at IR-09, IR-37 and IR-65 (2000-2001); Industrial Process Equipment Survey, Sampling, Decontamination and Waste Consolidation Action (2002); Storm Drain and Sanitary Sewer Removal Action (2007-2011); Final ROD for Parcel G (2009), Remedial Action (2013).
G	SOIL	ALDRIN	309-00-2	1,4:5,8-DIMETHANONAPHTHALENE	P004	0.454 kg	UNKNOWN	UNKNOWN	R	
G	SOIL	ALPHA-CHLORDANE	57-74-9	CHLORDANE; CHLORDANE, ALPHA & GAMMA ISOMERS; CHLORDANE (TECHNICAL MIXTURE & METABOLITES)	U036	0.454 kg	UNKNOWN	UNKNOWN	R	
G	SOIL	ALUMINUM	7429-90-5	NONE	NA	NA	UNKNOWN	UNKNOWN	R	
G	SOIL	ANTHRACENE	120-12-7	NONE	NA	2270 kg	UNKNOWN	UNKNOWN	R	
G	SOIL	ANTIMONY	7440-36-0	NONE	NA	NA	UNKNOWN	UNKNOWN	R	
G	SOIL	AROCLOR-1242	53469-21-9	NONE	NA	0.454 kg	UNKNOWN	UNKNOWN	R	
G	SOIL	AROCLOR-1254	11097-69-1	NONE	NA	0.454 kg	UNKNOWN	UNKNOWN	R	
G	SOIL	AROCLOR-1260	11096-82-5	NONE	NA	0.454 kg	UNKNOWN	UNKNOWN	R	
G	SOIL	ARSENIC	7440-38-2	NONE	D004	0.454 kg	UNKNOWN	UNKNOWN	R	
G	SOIL	BARIUM	7440-39-3	NONE	D005	454 kg	UNKNOWN	UNKNOWN	R	
G	SOIL	BENZENE	71-43-2	NONE	U019	4.54 kg	UNKNOWN	UNKNOWN	R	
G	SOIL	BENZO(A)ANTHRACENE	56-55-3	BENZ[A]ANTHRACENE; 1,2-BENZANTHRACENE	U018	4.54 kg	UNKNOWN	UNKNOWN	R	
G	SOIL	BENZO(A)PYRENE	50-32-8	3,4-BENZOPYRENE	U022	0.454 kg	UNKNOWN	UNKNOWN	R	
G	SOIL	BENZO(B)FLUORANTHENE	205-99-2	NONE	NA	0.454 kg	UNKNOWN	UNKNOWN	R	
G	SOIL	BENZO(G,H,I)PERYLENE	191-24-2	NONE	NA	2270 kg	UNKNOWN	UNKNOWN	R	
G	SOIL	BENZO(K)FLUORANTHENE	207-08-9	NONE	NA	2270 kg	UNKNOWN	UNKNOWN	R	
G	SOIL	BERYLLIUM	7440-41-7	BERYLLIUM POWDER	P015	4.54 kg	UNKNOWN	UNKNOWN	R	
G	SOIL	BETA-BHC	319-85-7	NONE	NA	0.454 kg	UNKNOWN	UNKNOWN	R	
G	SOIL	BIS(2-ETHYLHEXYL)PHTHALATE	117-81-7	1,2-BENZENEDICARBOXYLIC ACID; BIS(2-ETHYLHEXYL)ESTER; DEHP; DIETHYLHEXYL PHTHALATE	U028	45.4 kg	UNKNOWN	UNKNOWN	R	
G	SOIL	BUTYLBENZYLPHTHALATE	85-68-7	NONE	NA	45.4 kg	UNKNOWN	UNKNOWN	R	
G	SOIL	CADMIUM	7440-43-9	NONE	D006	4.54 kg	UNKNOWN	UNKNOWN	R	
G	SOIL	CARBAZOLE	86-74-8	NONE	NA	NA	UNKNOWN	UNKNOWN	R	
G	SOIL	CARBON DISULFIDE	75-15-0	NONE	P022	45.4 kg	UNKNOWN	UNKNOWN	R	
G	SOIL	CHLOROFORM	67-66-3	METHANE, TRICHLORO-	U044	4.54 kg	UNKNOWN	UNKNOWN	R	
G	SOIL	CHROMIUM	7440-47-3	NONE	NA	2270 kg	UNKNOWN	UNKNOWN	R	
G	SOIL	CHROMIUM VI	NA	NONE	NA	NA	UNKNOWN	UNKNOWN	R	
G	SOIL	CHRYSENE	218-01-9	NONE	U050	45.4 kg	UNKNOWN	UNKNOWN	R	
G	SOIL	COBALT	7440-48-4	NONE	NA	NA	UNKNOWN	UNKNOWN	R	
G	SOIL	COPPER	7440-50-8	NONE	NA	2270 kg	UNKNOWN	UNKNOWN	R	
G	SOIL	DELTA-BHC	319-86-8	NONE	NA	0.454 kg	UNKNOWN	UNKNOWN	R	
G	SOIL	DIBENZ(A,H)ANTHRACENE	53-70-3	DIBENZO(A,H)ANTHRACENE; 1,2:5,6-DIBENZANTHRACENE	U063	0.454 kg	UNKNOWN	UNKNOWN	R	
G	SOIL	DIBENZOFURAN	132-64-9	NONE	NA	45.4 kg	UNKNOWN	UNKNOWN	R	

TABLE A-1. SUMMARY OF HAZARDOUS SUBSTANCES STORED, DISPOSED OF, OR RELEASED

Finding of Suitability for Transfer for Parcel G, Hunters Point Naval Shipyard, San Francisco, California

Parcel	Medium	Hazardous Substance[a,b]	CAS Number	Regulatory Synonym	RCRA Waste Code	Reportable Quantity	Estimated Quantity	Dates of Storage, Disposal or Release (if known)	Stored (S), Disposed of (D) or Released (R)	Action Taken
G	SOIL	DIELDRIN	60-57-1	2,7:3,6-DIMETHANONAPTH[2,3-B]OXIRENE	P037	0.454 kg	UNKNOWN	UNKNOWN	R	Pickling and Plate Yard Removal Action (1994-1996); Exploratory Excavation Removal Action at IR-33, IR-37 and IR-70 (1996-1997); Storm Drain Sediment Removal Action (1996-1997); Soil TCRA at IR-09, IR-37 and IR-65 (2000-2001); Industrial Process Equipment Survey, Sampling, Decontamination and Waste Consolidation Action (2002); Storm Drain and Sanitary Sewer Removal Action (2007-2011); Final ROD for Parcel G (2009), Remedial Action (2013).
G	SOIL	DI-N-BUTYLPHTHALATE	84-74-2	DIBUTYL PHTHALATE; N-BUTYL PHTHALATE; 1,2-BENZENEDICARBOXYLIC ACID, DIBUTYL ESTER	U069	4.54 kg	UNKNOWN	UNKNOWN	R	
G	SOIL	DI-N-OCTYLPHTHALATE	117-84-0	1,2-BENZENEDICARBOXYLIC ACID, DIOCTYL ESTER	U069	4.54 kg	UNKNOWN	UNKNOWN	R	
G	SOIL	ENDOSULFAN I	959-98-8	ALPHA-ENDOSULFAN	NA	0.454 kg	UNKNOWN	UNKNOWN	R	
G	SOIL	ENDOSULFAN II	33213-65-9	BETA-ENDOSULFAN	NA	0.454 kg	UNKNOWN	UNKNOWN	R	
G	SOIL	ENDRIN	72-20-8	ENDRIN & METABOLITES	P051	0.454 kg	UNKNOWN	UNKNOWN	R	
G	SOIL	ENDRIN ALDEHYDE	7421-93-4	NONE	NA	0.454 kg	UNKNOWN	UNKNOWN	R	
G	SOIL	ENDRIN KETONE	72-20-8	ENDRIN & METABOLITES	P051	0.454 kg	UNKNOWN	UNKNOWN	R	
G	SOIL	ETHYLBENZENE	100-41-4	NONE	NA	454 kg	UNKNOWN	UNKNOWN	R	
G	SOIL	FLUORANTHENE	206-44-0	NONE	U120	45.4 kg	UNKNOWN	UNKNOWN	R	
G	SOIL	FLUORENE	86-73-7	NONE	NA	2270 kg	UNKNOWN	UNKNOWN	R	
G	SOIL	GAMMA-CHLORDANE	57-74-9	CHLORDANE; CHLORDANE, ALPHA & GAMMA ISOMERS; CHLORDANE (TECHNICAL MIXTURE & METABOLITES)	NA	2270 kg	UNKNOWN	UNKNOWN	R	
G	SOIL	HEPTACHLOR	76-44-8	NONE	P059	0.454 kg	UNKNOWN	UNKNOWN	R	
G	SOIL	HEPTACHLOR EPOXIDE	1024-57-3	NONE	NA	0.454 kg	UNKNOWN	UNKNOWN	R	
G	SOIL	INDENO(1,2,3-CD)PYRENE	193-39-5	1,10-(1,2-PHENYLENE)PYRENE	U137	45.4 kg	UNKNOWN	UNKNOWN	R	
G	SOIL	IRON	7439-89-6	NONE	NA	NA	UNKNOWN	UNKNOWN	R	
G	SOIL	ISOPHORONE	78-59-1	NONE	NA	2270 kg	UNKNOWN	UNKNOWN	R	
G	SOIL	LEAD	7439-92-1	NONE	NA	4.54 kg	UNKNOWN	UNKNOWN	R	
G	SOIL	M,P-XYLENES	1330-20-7	BENZENE, DIMETHYL-	U239	45.4 kg	UNKNOWN	UNKNOWN	R	
G	SOIL	MANGANESE	7439-96-5	NONE	NA	NA	UNKNOWN	UNKNOWN	R	
G	SOIL	MERCURY	7439-97-6	NONE	U151	0.454 kg	UNKNOWN	UNKNOWN	R	
G	SOIL	METHYLENE CHLORIDE	75-09-2	DICHLOROMETHANE; METHANE, DICHLORO-	U080	454 kg	UNKNOWN	UNKNOWN	R	
G	SOIL	MOLYBDENUM	7439-98-7	NONE	NA	NA	UNKNOWN	UNKNOWN	R	
G	SOIL	NAPHTHALENE	91-20-3	NONE	U165	45.4 kg	UNKNOWN	UNKNOWN	R	
G	SOIL	NICKEL	7440-02-0	NONE	NA	45.4 kg	UNKNOWN	UNKNOWN	R	
G	SOIL	O-XYLENE	95-47-6	NONE	NA	454 kg	UNKNOWN	UNKNOWN	R	
G	SOIL	PENTACHLOROPHENOL	87-86-5	NONE	F027	4.54 kg	UNKNOWN	UNKNOWN	R	
G	SOIL	PHENANTHRENE	85-01-8	NONE	NA	2270 kg	UNKNOWN	UNKNOWN	R	
G	SOIL	PHENOL	108-95-2	NONE	U188	454 kg	UNKNOWN	UNKNOWN	R	
G	SOIL	PYRENE	129-00-0	NONE	NA	2270 kg	UNKNOWN	UNKNOWN	R	
G	SOIL	SELENIUM	7782-49-2	NONE	NA	45.4 kg	UNKNOWN	UNKNOWN	R	
G	SOIL	SILVER	7440-22-4	NONE	NA	454 kg	UNKNOWN	UNKNOWN	R	

TABLE A-1. SUMMARY OF HAZARDOUS SUBSTANCES STORED, DISPOSED OF, OR RELEASED

Finding of Suitability for Transfer for Parcel G, Hunters Point Naval Shipyard, San Francisco, California

Parcel	Medium	Hazardous Substance[a,b]	CAS Number	Regulatory Synonym	RCRA Waste Code	Reportable Quantity	Estimated Quantity	Dates of Storage, Disposal or Release (if known)	Stored (S), Disposed of (D) or Released (R)	Action Taken
G	SOIL	TETRACHLOROETHENE	127-18-4	ETHENE, TETRACHLORO-; PERCHLOROETHYLENE; TETRACHLOROETHYLENE	U210	45.4 kg	UNKNOWN	UNKNOWN	R	Pickling and Plate Yard Removal Action (1994-1996); Exploratory Excavation Removal Action at IR-33, IR-37 and IR-70 (1996-1997); Storm Drain Sediment Removal Action (1996-1997); Soil TCRA at IR-09, IR-37 and IR-65 (2000-2001); Industrial Process Equipment Survey, Sampling, Decontamination and Waste Consolidation Action (2002); Storm Drain and Sanitary Sewer Removal Action (2007-2011); Final ROD for Parcel G (2009), Remedial Action (2013).
G	SOIL	THALLIUM	7440-28-0	NONE	NA	454 kg	UNKNOWN	UNKNOWN	R	
G	SOIL	TOLUENE	108-88-3	BENZENE, METHYL-	U220	454 kg	UNKNOWN	UNKNOWN	R	
G	SOIL	TRICHLOROETHENE	79-01-6	ETHENE, TRICHLORO-; TRICHLOROETHYLENE	U228	45.4 kg	UNKNOWN	UNKNOWN	R	
G	SOIL	VANADIUM	7440-62-2	NONE	NA	NA	UNKNOWN	UNKNOWN	R	
G	SOIL	XYLENE (TOTAL)	1330-20-7	BENZENE, DIMETHYL-	U239	45.4 kg	UNKNOWN	UNKNOWN	R	
G	SOIL	ZINC	7440-66-6	NONE	NA	454 kg	UNKNOWN	UNKNOWN	R	
G	SOIL	CESIUM-137	NA	NONE	NA	1 Curie	UNKNOWN	UNKNOWN	R	Radiological TCRA (2007-2011)
G	SOIL	RADIUM-226	NA	NONE	NA	0.1 Curie	UNKNOWN	UNKNOWN	R	
G	SOIL	STRONTIUM-90	NA	NONE	NA	0.1 Curie	UNKNOWN	UNKNOWN	R	
G	SOIL GAS	1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	76-13-1	ETHANE, TRICHLOROTRIFLUORO-; FREON 113	NA	NA	UNKNOWN	UNKNOWN	R	Record of Decision (institutional controls) (2009)
G	SOIL GAS	2-BUTANONE	78-93-3	MEK; METHYL ETHYL KETONE	U159	2270 kg	UNKNOWN	UNKNOWN	R	
G	SOIL GAS	ACETONE	67-64-1	2-PROPANONE	U002	2270 kg	UNKNOWN	UNKNOWN	R	
G	SOIL GAS	BENZENE	71-43-2	NONE	U019	4.54 kg	UNKNOWN	UNKNOWN	R	
G	SOIL GAS	CARBON DISULFIDE	75-15-0	NONE	P022	45.4 kg	UNKNOWN	UNKNOWN	R	
G	SOIL GAS	CARBON TETRACHLORIDE	56-23-5	METHANE, TETRACHLORO	U211	4.54 kg	UNKNOWN	UNKNOWN	R	
G	SOIL GAS	CHLOROBENZENE	108-90-7	BENZENE, CHLORO-	U037	45.4 kg	UNKNOWN	UNKNOWN	R	
G	SOIL GAS	CHLOROFORM	67-66-3	METHANE, TRICHLORO-	U044	4.54 kg	UNKNOWN	UNKNOWN	R	
G	SOIL GAS	CIS-1,2-DICHLOROETHENE	156-60-5	ETHENE, 1,2-DICHLORO (E); 1,2-DICHLOROETHYLENE	U079	454 kg	UNKNOWN	UNKNOWN	R	
G	SOIL GAS	CYCLOHEXANE	110-82-7	NONE	U056	454 kg	UNKNOWN	UNKNOWN	R	
G	SOIL GAS	ETHYLBENZENE	100-41-4	NONE	NA	454 kg	UNKNOWN	UNKNOWN	R	
G	SOIL GAS	M,P-XYLENES	1330-20-7	BENZENE, DIMETHYL-	U239	45.4 kg	UNKNOWN	UNKNOWN	R	
G	SOIL GAS	METHYLCYCLOHEXANE	108-87-2	NONE	NA	NA	UNKNOWN	UNKNOWN	R	
G	SOIL GAS	METHYLENE CHLORIDE	75-09-2	DICHLOROMETHANE; METHANE, DICHLORO-	U080	454 kg	UNKNOWN	UNKNOWN	R	
G	SOIL GAS	NAPHTHALENE	91-20-3	NONE	U165	45.4 kg	UNKNOWN	UNKNOWN	R	
G	SOIL GAS	O-XYLENE	95-47-6	NONE	NA	454 kg	UNKNOWN	UNKNOWN	R	
G	SOIL GAS	PROPYLBENZENE	103-65-1	NONE	NA	NA	UNKNOWN	UNKNOWN	R	
G	SOIL GAS	STYRENE	100-42-5	NONE	NA	454 kg	UNKNOWN	UNKNOWN	R	
G	SOIL GAS	TETRACHLOROETHENE	127-18-4	ETHENE, TETRACHLORO-; PERCHLOROETHYLENE; TETRACHLOROETHYLENE	U210	45.4 kg	UNKNOWN	UNKNOWN	R	
G	SOIL GAS	TOLUENE	108-88-3	BENZENE, METHYL-	U220	454 kg	UNKNOWN	UNKNOWN	R	
G	SOIL GAS	TRICHLOROETHENE	79-01-6	ETHENE, TRICHLORO-; TRICHLOROETHYLENE	U228	45.4 kg	UNKNOWN	UNKNOWN	R	
G	SOIL GAS	TRICHLOROFLUOROMETHANE	75-69-4	METHANE, TRICHLOROFLUORO-; FREON 11	NA	NA	UNKNOWN	UNKNOWN	R	

TABLE A-1. SUMMARY OF HAZARDOUS SUBSTANCES STORED, DISPOSED OF, OR RELEASED

Finding of Suitability for Transfer for Parcel G, Hunters Point Naval Shipyard, San Francisco, California

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The information contained in this notice is required under the authority of regulations promulgated under Section 120(h) of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA or "Superfund") 42 U.S.C. Section 9620(h).

Notes:

a This table was prepared in accordance with 40 CFR 373 and 40 CFR 302.4. The substances which do not have chemical-specific breakdown (and associated annual reportable quantity) are not listed in 40 CFR 302.4, and therefore have no corresponding regulatory synonyms, no RCRA waste numbers, and no reportable quantities.

b The property may contain pesticide residue from pesticides that have been applied in the management of the property. The Navy knows of no use of any registered pesticide in a manner inconsistent with its labelling, and believes that all applications were made in accordance with the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA - 7 U.S.C. Sec. 136, et seq.), its implementing regulations, and according to the labeling provided with such substances. It is the Navy's position that it shall have no obligation under the covenants provided pursuant to Section 120(h)(3)(A)(ii) of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980, 42 U.S.C. Section 9620(h)(3)(A(ii), for the remediation of legallly applied pesticides.

CAS Chemical Abstract Service
CFR *Code of Federal Regulations*
DDD Dichlorodiphenyldichloroethane
DDE Dichlorodiphenyldichloroethane
DDT Dichlorodiphenyltrichloroethane
FIFRA Federal Insecticide, Fungicide, and Rodenticide Act of 1972
kg Kilogram
ROD Record of Decision
RCRA Resource Conservation and Recovery Act
TCRA Time-Critical Removal Action
U.S.C. *United States Code*

References:

Alliance Compliance. 2010. Final Parcels D-1 and G Groundwater Treatability Study Technical Report, IR-09, IR-33, and IR-71, Hunters Point Shipyard, San Francisco, California. March 11.

Department of the Navy. 2009. Final Record of Decision for Parcel G, Hunters Point Shipyard, San Francisco, California. February 18.

Foster Wheeler Environmental Corporation. 2003. Final Post-Construction Report, Industrial Process Equipment Survey, Sampling, Decontamination, and Waste Consolidation, Parcel D, Hunters Point Shipyard, San Francisco, California. Revision 0. October 22.

IT Corporation. 1999. Completion Report, Exploratory Excavations, Hunters Point Naval Shipyard, San Francisco, California. June.

SulTech. 2007. Final Revised Feasibility Study for Parcel D, Hunters Point Shipyard, San Francisco, California. November 30.

Tetra Tech EC, Inc. 2011. Final Removal Action Completion Report, Parcel G, Hunters Point Naval Shipyard, San Francisco, California. December 2.

Tetra Tech EM Inc. 2001. Revised Parcel D Information Package for the Phase II Groundwater Data Gaps Investigation, Hunters Point Shipyard, San Francisco, California. March 8.

APPENDIX B
REGULATORY COMMENTS AND COMMENT ADJUDICATION

RESPONSES TO REGULATORY AGENCY COMMENTS ON THE DRAFT FINDING OF SUITABILITY TO TRANSFER (FOST) FOR PARCEL G, HUNTERS POINT NAVAL SHIPYARD, SAN FRANCISCO, CALIFORNIA, DATED JUNE 17, 2014

The table below contains the responses to comments received from the regulatory agencies on the "Draft Finding of Suitability to Transfer for Parcel G, Hunters Point Naval Shipyard, San Francisco, California," dated June 17, 2014. The comments addressed below were received from the U.S. Environmental Protection Agency (EPA), the California Department of Toxic Substances Control (DTSC), the San Francisco Bay Regional Water Quality Control Board (Water Board), and the City and County of San Francisco Department of Public Health (city). Throughout this table, *italicized* text represents additions to the document and ~~strikeout~~ text indicates deletions. Also throughout this table, references to page, section, table, and figure numbers pertain to the new document unless otherwise indicated.

Comment Number	Section/ Page	Comment	Response to Comment
Responses to Comments from U.S. Environmental Protection Agency (Lily Lee, dated July 18, 2014)			
General Comment			
1.	---	EPA's concurrence letter on the final FOST for Parcel G will include our usual reservations regarding post-transfer discoveries of hazardous substances, including pesticides.	The Navy notes and understands EPA's comment.

RESPONSES TO U.S. ENVIRONMENTAL PROTECTION AGENCY (EPA) COMMENTS ON THE DRAFT FINDING OF SUITABILITY TO TRANSFER (FOST) FOR PARCEL G, HUNTERS POINT NAVAL SHIPYARD, SAN FRANCISCO, CALIFORNIA, DATED JUNE 17, 2014 (CONTINUED)

Comment Number	Section/ Page	Comment	Response to Comment
2.	---	The Draft Finding of Suitability to Transfer for Parcel G, Hunters Point Naval Shipyard, San Francisco, California, June 2014 (the FOST) references the Environmental Baseline Survey (EBS) Report; however, this document was completed in 1998 and it is unclear whether any updates to the EBS have been conducted in the 16 years since then. According to the Department of Defense (DoD) Guidance on the Environmental Review Process to Reach a Finding of Suitability to Transfer (FOST) for Property Where Release or Disposal Has Occurred, dated July 1995 (the FOST Guidance), the EBS Report should include descriptions of ongoing response actions or actions that have been taken at or adjacent to the property. Because the existing EBS Report was completed in 1998, it does not include any of the actions taken in the last 16 years. In addition, the FOST Guidance indicates that "Before the signing of a FOST, an analysis of the intended use of the property, if known, will be conducted;" however, the FOST does not include an analysis of the intended use for Parcel G. Please revise the FOST to clarify whether updates to the EBS have been conducted in the 16 years since the initial EBS Report, and if not, provide descriptions of ongoing response actions or actions that have been taken at or adjacent to the property. Please also revise the FOST to include an analysis of the intended use for Parcel G or specify that the intended use is unknown.	No updates to the EBS have been issued, but many investigations have been conducted since 1998. Refer to Table 1 of the record of decision (ROD) for Parcel G (Navy 2009) for more information on past investigations. Section 3.1 describes remedial and response actions taken at the Property. Section 4.0 has been expanded to describe the ongoing remedial actions at areas adjacent to the Property. Section 2.0 has been expanded as follows to describe the analysis of future land uses planned for the Property. *"**Future land uses.** The original redevelopment plan developed by the former San Francisco Redevelopment Agency (SFRA) in 1997 divided HPNS into reuse areas (SFRA 1997). The reuse areas included residential, educational and cultural, maritime and industrial, mixed use, open space, and research and development uses. The former SFRA issued an amended reuse plan in 2010 that incorporated 'land use districts' in the subdivision of HPNS (SFRA 2010). The Property is included in the Shipyard South Multi-Use District. Principal uses within this land use district include residential; institutional; retail sales and services; office and industrial; multi-media and digital arts; athletic and recreational facilities; and civic, arts, and entertainment uses (SFRA 2010). The 2010 reuse plan expanded potential reuse options at the Property to include "* [response continues below]

RESPONSES TO U.S. ENVIRONMENTAL PROTECTION AGENCY (EPA) COMMENTS ON THE DRAFT FINDING OF SUITABILITY TO TRANSFER (FOST) FOR PARCEL G, HUNTERS POINT NAVAL SHIPYARD, SAN FRANCISCO, CALIFORNIA, DATED JUNE 17, 2014 (CONTINUED)

Comment Number	Section/ Page	Comment	Response to Comment
2. (con't)	---	[continuation of response; see comment above]	*residential use options. However, the plan did not introduce any new exposure scenarios that were not already taken into account by the record of decision (ROD) (Navy 2009)."*
3.	---	EPA may have additional comments on this document as discussions about various aspects of property transfer move forward.	Comment noted.
Specific Comments			
1.	Section 2.0, Property Description, Page 1 and Section 4.0, Adjacent Parcels, Page 9	Section 2.0 states that Parcel G "is bounded by Parcels UC-1 and UC-2 to the north;" however, this is inconsistent with Section 4.0, which states that Parcel G is bound by "Parcels UC-1, UC-2, D-2, and former Parcel A to the north." Please resolve this discrepancy.	Section 4.0 has been revised as follows. "The Property is surrounded by other HPNS parcels as follows: Parcels UC-1, UC-2, (*and* D-2, and former Parcel A *just beyond* to the north), Parcels C and D-1 to the east…"

RESPONSES TO U.S. ENVIRONMENTAL PROTECTION AGENCY (EPA) COMMENTS ON THE DRAFT FINDING OF SUITABILITY TO TRANSFER (FOST) FOR PARCEL G, HUNTERS POINT NAVAL SHIPYARD, SAN FRANCISCO, CALIFORNIA, DATED JUNE 17, 2014 (CONTINUED)

Comment Number	Section/ Page	Comment	Response to Comment
2.	Section 3.1, Comprehensive Environmental Response, Compensation, and Liability Act, Page 2	The second paragraph of Section 3.1 states "COCs [contaminants of concern] in groundwater are primarily VOCs [volatile organic compounds] and selected metals." While the text following this statement discusses specific VOCs, the text does not specify which metals are of concern in groundwater. For example, there were several hexavalent chromium plumes in Parcel G; although these plumes appear to have been addressed by injections or the storm drain and sanitary sewer system removal action, rebound could occur. Please revise Section 3.1 to specify the metals of concern in groundwater, including hexavalent chromium.	Section 3.1 has been expanded as follows. "*Metals of concern in groundwater include hexavalent chromium and nickel.*"

RESPONSES TO U.S. ENVIRONMENTAL PROTECTION AGENCY (EPA) COMMENTS ON THE DRAFT FINDING OF SUITABILITY TO TRANSFER (FOST) FOR PARCEL G, HUNTERS POINT NAVAL SHIPYARD, SAN FRANCISCO, CALIFORNIA, DATED JUNE 17, 2014 (CONTINUED)

Comment Number	Section/ Page	Comment	Response to Comment

3.	Section 3.1.1, Pre-ROD Removal Actions Page 3	Section 3.1.1 includes a bulleted list of removal actions that occurred prior to the Record of Decision (ROD); however, there are removal actions missing from the list, including the removal of polychlorinated biphenyl (PCB) Transformers, sediment removal from storm drains, and the removal of sandblast grit. These removal actions are discussed in the 1997 Revised Final Feasibility Study for Parcel D. Please revise Section 3.1.1 to summarize all the removal actions that occurred at Parcel G prior to the completion of the ROD.	Section 3.1 has been expanded to include the following additional actions.
			
			• ***1974 to 1998:*** *Removal of PCB-bearing electrical equipment basewide.*
			  ○ ***1974 to 1988:*** *Removal and disposal off site of 199 transformers, including 99 found to contain PCBs. Most transformers were removed in 1987 and 1988 (YEI Engineers, Inc. [YEI] 1988).*
			  ○ ***1996:*** *Removal and disposal off site of 239 pieces of PCB-containing equipment (Public Works Center San Francisco Bay [PWCSFB] 1996).*
			
			[response continues below]

RESPONSES TO U.S. ENVIRONMENTAL PROTECTION AGENCY (EPA) COMMENTS ON THE DRAFT FINDING OF SUITABILITY TO TRANSFER (FOST) FOR PARCEL G, HUNTERS POINT NAVAL SHIPYARD, SAN FRANCISCO, CALIFORNIA, DATED JUNE 17, 2014 (CONTINUED)

Comment Number	Section/ Page	Comment	Response to Comment
3. (con't)	Section 3.1.1, Pre-ROD Removal Actions Page 3	[continuation of response; see comment above]	• ***1991 to 1995:*** *Approximately 4,665 tons of sandblast grit was collected from areas across HPNS and consolidated at Parcel E. In addition, about 90 tons of sandblast grit was removed from IR Site 44 and reused off site in the manufacture of asphalt (Battelle 1996).* • ***1996 to 1997:*** *More than 1,200 tons of sediment was removed from the storm drain system, including storm drains on the Property, and disposed of off site (IT Corporation 1997).*
4.	Section 3.1.2, Page 4	This section states that the ARICs for VOC vapors have been established through review and approval by the FFA signatories of a memorandum to the administrative record file addressing the revised VOC ARICs boundary. However, as the memo is still forthcoming, EPA has not reviewed it. EPA will need to review the memo and approve the VOC ARICs before concurring on the FOST.	The Navy is preparing the memorandum to file and will finalize it before the FOST for Parcel G is finalized. [The Navy finalized this memorandum on November 13, 2014.]

RESPONSES TO U.S. ENVIRONMENTAL PROTECTION AGENCY (EPA) COMMENTS ON THE DRAFT FINDING OF SUITABILITY TO TRANSFER (FOST) FOR PARCEL G, HUNTERS POINT NAVAL SHIPYARD, SAN FRANCISCO, CALIFORNIA, DATED JUNE 17, 2014 (CONTINUED)

Comment Number	Section/ Page	Comment	Response to Comment
5.	Section 3.1.3, Radiological Concerns, Page 5	The first paragraph of Section 3.1.3 lists Buildings 364 and 365 as buildings that have been radiologically impacted; however, the text also identifies former building site 317/364/365 as radiologically impacted. It is unclear how Buildings 364 and 365 are considered both current and former building sites. Please resolve this discrepancy or revise Section 3.1.3 to explain why Buildings 364 and 365 are listed as both current and former building sites.	Buildings 364 and 365 were demolished during the radiological removal action. Section 3.1.3 has been revised as follows. "The HRA identified Buildings 351, 351A, ~~364, 365~~, 366, 401, 408, 411, and 439 and one former building site (317/364/365) as being radiologically impacted within the Property."
6.	Section 3.5, Asbestos-Containing Material, Page 7	Section 3.5 lists the buildings within Parcel G where remediation for asbestos-containing material (ACM) occurred; however, the text does not include a list of buildings where asbestos and/or ACM have been found. It is understood that a list of these buildings is included in Section 5.2, but for completeness this list should also be included in Section 3.5. Please revise Section 3.5 to include a list of buildings within Parcel G where asbestos and/or ACM have been found.	Section 3.5 has been revised as follows. "*Buildings 302, 303, 304, 323, 324, 351, 351A, 363, 366, 401, 402, 404, 407, 409, 411, 417, 418, 419, 420, 421, 422, 423, 424, 435, 436, 437, and 439* ~~Of the 148 buildings and structures inspected, all except six (including former Building 438 on the Property)~~ were found to contain either ACM, assumed ACM, or suspected ACM."

RESPONSES TO U.S. ENVIRONMENTAL PROTECTION AGENCY (EPA) COMMENTS ON THE DRAFT FINDING OF SUITABILITY TO TRANSFER (FOST) FOR PARCEL G, HUNTERS POINT NAVAL SHIPYARD, SAN FRANCISCO, CALIFORNIA, DATED JUNE 17, 2014 (CONTINUED)

Comment Number	Section/ Page	Comment	Response to Comment
7.	Section 3.6, Lead-Based Paint, Page 8	According to the second paragraph of Section 3.6, "The Navy is not aware of any LBP [lead-based paint] that has been released into the environment;" however, LBP used to paint buildings has been weathering and peeling off since the base was closed in 1974. While the soil is currently covered by asphalt, concrete, or buildings, historically, there was exposed soil (e.g., at IR-09, which included structures and equipment that were covered with paint, suggesting that paint was used at this site). Please revise Section 3.6 to acknowledge that there are areas where releases to soil of LBP via weathered and peeling paint may have occurred in Parcel G.	The cited statement accurately represents the Navy's position. Section 5.3 already states that lead from LBP may exist in soil surrounding buildings that may have been stripped from the buildings through normal weathering. The report was not changed as a result of this comment.
8.	Section 3.7, Polychlorinated Biphenyls, Page 8	According to the first paragraph of Section 3.7, "199 transformers located throughout HPNS [Hunters Point Naval Shipyard] were removed from their original locations;" however, it is not clear whether these transformers remained at HPNS or if they were disposed of off-site. In addition, the text states that a survey of existing transformers identified "83 transformers containing PCBs at less than 50 parts per million (ppm) and 169 at greater than 50 ppm;" however, it is not clear whether these values include the 199 transformers removed from their original locations. Please revise Section 3.7 to indicate whether the 199 transformers removed from their original locations remained at HPNS or were disposed of off-site. In addition, please clarify whether the survey of existing transformers included the 199 transformers removed from their original locations.	The transformers were disposed of off site. The 199 transformers are <u>not</u> included in the 83 and 169 values. Section 3.7 has been revised as follows to be more clear. "In 1987 and 1988, 199 transformers located throughout HPNS were removed from their original locations *and disposed of off site* by American Environmental Management Corporation and the Navy's Public Works Department (Harding Lawson Associates 1990). *After this removal*, YEI conducted a facility-wide utility study… YEI found 83 transformers containing PCBs…

RESPONSES TO U.S. ENVIRONMENTAL PROTECTION AGENCY (EPA) COMMENTS ON THE DRAFT FINDING OF SUITABILITY TO TRANSFER (FOST) FOR PARCEL G, HUNTERS POINT NAVAL SHIPYARD, SAN FRANCISCO, CALIFORNIA, DATED JUNE 17, 2014 (CONTINUED)

Comment Number	Section/ Page	Comment	Response to Comment
9.	Section 3.7, Polychlorinated Biphenyls, Page 9	Section 3.7 states "all out-of-service transformers and OCBs [oil circuit breakers] with PCB concentrations greater than 5 ppm were scheduled to be removed in 1998;" however, the text does not indicate whether transformers in service had concentrations of PCBs greater than 5 ppm, and if so, whether a monitoring or replacement program was implemented to prevent future releases. Please revise Section 3.7 to indicate whether transformers in service had concentrations of PCBs greater than 5 ppm. If so, please revise Section 3.7 to include information about the transformers with PCB concentrations greater than 5 ppm and discuss whether a monitoring or replacement program was implemented to prevent future releases.	Concentrations less than 50 ppm for liquid oil or 10 micrograms per 100 square centimeters (10 µg/100 cm^2) for wipe samples are categorized as "non-PCB" by the Toxic Substances Control Act (TSCA) regulations promulgated at 40 CFR Part 761. The 50 ppm concentration is the applicable threshold; therefore, Section 3.7 has been revised to remove discussion of the 5 ppm offsite disposal value for liquid oil to minimize the potential for confusion.
10.	Section 3.7, Polychlorinated Biphenyls, Page 9	According to Section 3.7 "The IPE [industrial process equipment] survey used thresholds of 50 ppm for liquid oil," but the text does not indicate why the value for IPE is greater than the value used for liquids within a transformer or electrical equipment (5 ppm). Please revise Section 3.7 to explain why the threshold value for IPE exceeds the value used for liquids within a transformer or electrical equipment.	Please refer to the response to EPA comment 9. Section 3.7 has been revised to remove discussion of the 5 ppm offsite disposal value for liquid oil to minimize the potential for confusion. To further clarify the IPE survey, the text has been revised as follows. "The IPE survey used *the Toxic Substances Control Act (TSCA) "non-PCB"* thresholds of 50 ppm for liquid oil…"

RESPONSES TO U.S. ENVIRONMENTAL PROTECTION AGENCY (EPA) COMMENTS ON THE DRAFT FINDING OF SUITABILITY TO TRANSFER (FOST) FOR PARCEL G, HUNTERS POINT NAVAL SHIPYARD, SAN FRANCISCO, CALIFORNIA, DATED JUNE 17, 2014 (CONTINUED)

Comment Number	Section/ Page	Comment	Response to Comment
11.	Section 4.0, Adjacent Parcels, Page 11	Section 4.0 indicates that parcel-wide soil gas surveys have not yet been conducted at Parcels C and E, so it is unclear how the FOST can conclude that it is unlikely that soil gas from Parcels C and E would adversely affect Parcel G. It is understood that areas of known VOC contamination in soil and groundwater at Parcels C and E are undergoing remediation, but additional information should be provided in order to support the statement that it is unlikely that soil gas from Parcels C and E would adversely affect Parcel G (e.g., figures displaying potential sources, such as groundwater plumes in the Parcels in proximity to Parcel G, etc.). Please revise Section 4.0 to include additional information to support the statement that it is unlikely that soil gas from Parcels C and E would adversely affect Parcel G, particularly since parcel-wide soil gas surveys have not yet been conducted at Parcels C and E.	Detailed discussions of the extent of contamination on other parcels is not warranted in the FOST. This information is available in other documents, including the remedial design for Parcel C (CH2M Hill Kleinfelder Joint Venture 2012) and the ROD for Parcel E (Navy 2013). Remediation at Parcels C and E is intended to reduce VOC concentrations in soil gas to manage the potential risk posed by VOCs in soil gas. The report was not changed as a result of this comment.

RESPONSES TO U.S. ENVIRONMENTAL PROTECTION AGENCY (EPA) COMMENTS ON THE DRAFT FINDING OF SUITABILITY TO TRANSFER (FOST) FOR PARCEL G, HUNTERS POINT NAVAL SHIPYARD, SAN FRANCISCO, CALIFORNIA, DATED JUNE 17, 2014 (CONTINUED)

Comment Number	Section/ Page	Comment	Response to Comment
12.	Section 4.0, Adjacent Parcels, Page 12	According to Section 4.0, "It is unlikely that hazardous substances from Parcel E could adversely affect the Property based on the upgradient location of the Property relative to Parcel E;" however, the text also states that, "A VOC plume exists in groundwater beneath Building 406 immediately west of the Property." This VOC plume is planned "for active remediation using injection of a biological growth medium or ZVI [zero-valent iron]," and injections could cause contaminated groundwater to migrate toward or onto Parcel G. Please revise Section 4.0 to discuss the possibility of injections associated with remediation at Parcel E causing contaminated groundwater to migrate toward or onto Parcel G.	Section 4.0, subsection "West" has been revised as follows. "A VOC plume exists in groundwater beneath Building 406 immediately west *and downgradient* of the Property; this plume is identified in the ROD for Parcel E (Navy 2013) for active remediation using injection of a biological growth medium or ZVI." The remedial design for groundwater remediation, which will be subject to regulatory agency review and approval, will minimize the potential for migration of contaminated groundwater onto the Property caused by remediation. Additional comments on the potential for remedial activities to cause migration of groundwater plumes would be appropriate during the remedial design review process.
13.	Figure 5, Petroleum Areas of Concern	Figure 5 shows the location of all the underground storage tanks (USTs) (both removed and closed in place) described in the text; however, only one of the removed above ground storage tank (AST) locations is displayed. In addition, Section 3.3.1 references Figure 5 for the location of ASTs. Please revise Figure 5 to include the locations of the former ASTs within Parcel G or explain why this information has not been included.	Information on the locations of ASTs within buildings is not available. The following note has been added to Figure 5. "*Locations of nine other removed ASTs within buildings are not shown on this figure. These ASTs were located inside Buildings 302 (three), 304 (two), 324 (two), 363 (one), and 411 (one). Exact locations of the ASTs within the buildings are unknown.*"

RESPONSES TO U.S. ENVIRONMENTAL PROTECTION AGENCY (EPA) COMMENTS ON THE DRAFT FINDING OF SUITABILITY TO TRANSFER (FOST) FOR PARCEL G, HUNTERS POINT NAVAL SHIPYARD, SAN FRANCISCO, CALIFORNIA, DATED JUNE 17, 2014 (CONTINUED)

Comment Number	Section/ Page	Comment	Response to Comment
14.	Section 6.0, Page 13	This section states that institutional controls will be incorporated into two separate legal instruments: (1) quitclaim deed(s) between the Navy and the Transferee; and (2) a Covenant to Restrict the Use of Property ("CRUPs") between "the Navy and DTSC." EPA suggests revising this section to include references to all parties to the CRUP, which include the Navy, DTSC, and the current owner of record of the Property, together with EPA as a third-party beneficiary. EPA also recommends revising this section to explain that, until the transfer is complete, institutional control ("IC") objectives and land use restrictions will continue to be implemented through the LUC RDs. After transfer, the same IC objectives and land use restrictions that are described in the LUC RDs will simply be implemented through different legal mechanisms: the quitclaim deed and the CRUP (see p. 3 of the LUC RD report).	The Transferee will not be a signatory to the CRUP, but will be incorporated as a "successor and assign" from the Navy. The first paragraph of Section 6.0 has been revised as follows. "These restrictions will be incorporated into two separate legal instruments: (1) quitclaim deed(s) between the Navy and the Transferee; and (2) CRUP(s) between the Navy and DTSC, *with EPA as a third-party beneficiary. The ICs* ~~and they~~ will apply to any and all property within the ARIC*s (Figure 4).*" The end of Section 6.0 has been expanded as follows. "*The IC objectives will be met by access controls until the time of transfer.*"

RESPONSES TO U.S. ENVIRONMENTAL PROTECTION AGENCY (EPA) COMMENTS ON THE DRAFT FINDING OF SUITABILITY TO TRANSFER (FOST) FOR PARCEL G, HUNTERS POINT NAVAL SHIPYARD, SAN FRANCISCO, CALIFORNIA, DATED JUNE 17, 2014 (CONTINUED)

Comment Number	Section/ Page	Comment	Response to Comment
15.	Section 6.0, Page 14	EPA notes that Section 6.0 incorporates minor changes to the ROD and the LUC RDs. EPA believes that these are non-significant changes that will not alter the protectiveness of institutional controls. • The draft FOST's descriptions of IC land use restrictions differ slightly from the restrictions as set forth on p. 46 of the ROD. In particular, the language about allowing raised beds and trees grown in containers is not in the ROD. • The draft FOST clarifies that "land disturbing activities are not intended to include placement of additional clean, imported fill on top of the soil cover that the Navy has constructed on the property."	Comment noted. The language differs slightly from similar text in the ROD and land use control remedial design (LUC RD) because the Navy seeks consistency in the deeds with respect to restrictions. The slight differences in language are not significant. The text was not revised as a result of this comment.

RESPONSES TO U.S. ENVIRONMENTAL PROTECTION AGENCY (EPA) COMMENTS ON THE DRAFT FINDING OF SUITABILITY TO TRANSFER (FOST) FOR PARCEL G, HUNTERS POINT NAVAL SHIPYARD, SAN FRANCISCO, CALIFORNIA, DATED JUNE 17, 2014 (CONTINUED)

Comment Number	Section/ Page	Comment	Response to Comment
Responses to Additional Comments from U.S. Environmental Protection Agency (Lily Lee, dated November 12, 2014)			
1.	Section 2.0, Property Description, Page 1, Last Paragraph, Last Sentence	The draft language states "The 2010 reuse plan expanded potential reuse options at the Property to include residential use options. However, the plan did not introduce any new exposure scenarios that were not already taken into account by the record of decision (ROD) (Navy 2009)." While the ROD did indeed take into account a residential exposure scenario in a small section in the northeast corner of Parcel G, if future owners propose new uses that are more sensitive in other parts of this Parcel than those already in the ROD, then they must first seek approval from the FFA signatories. In other words, notwithstanding the 2010 amended reuse plan, and in accordance with the Parcel G Land Use Control Remedial Design for Parcel G, residential use in Parcel G continues to be restricted in areas designated for open space, educational/cultural, and industrial land uses in the 1997 reuse plan, unless prior written approval is granted by the FFA signatories. Please revise the language in the FOST to convey this more clearly.	Section 6.0, item 2 already describes restrictions related to residential use at the Property. The text has been expanded as follows: "*Refer to Section 6.0 for a more detailed description of restrictions on future land uses at the Property.*"

RESPONSES TO U.S. ENVIRONMENTAL PROTECTION AGENCY (EPA) COMMENTS ON THE DRAFT FINDING OF SUITABILITY TO TRANSFER (FOST) FOR PARCEL G, HUNTERS POINT NAVAL SHIPYARD, SAN FRANCISCO, CALIFORNIA, DATED JUNE 17, 2014 (CONTINUED)

Comment Number	Section/ Page	Comment	Response to Comment
2.	Section 3.1.2, Post-ROD Remedial and Removal Actions, Page 4	The second bullet states, "COCs in groundwater at Parcel G indicate concentrations less than remediation goals or declining trends since the treatment." However, page 36 of the *Remedial Action Completion Report, Durable Cover, Groundwater Treatment, and Institutional Controls for Parcel G* (March 2014) (RACR) states, "Chloroform concentrations indicate an erratic trend, with concentrations at times exceeding the RG. Monitoring for carbon tetrachloride had been stable and consistently below the RG; however, the most recent monitoring event showed an increased concentration exceeding the RG." These appear inconsistent. Please revise this section to be consistent with the RACR. Please also revise Figure 1 to be consistent with Figure 4 in the RACR that shows the extent of the IR-33 Plume and levels of chemicals above the RGs.	The text has been revised as follows. "COCs in groundwater at Parcel G indicate concentrations less than remediation goals or declining trends since the treatment, *except at well IR33MW64A (see Figure 3 for this well location), where concentrations were erratic* (Arcadis U.S., Inc. [Arcadis] 2014a). Groundwater continues to be monitored semiannually…" Figure 3 already shows the location of well IR33MW64A. The locations of former plumes in groundwater, as shown on Figure 4 of the RACR, are available in other documents and are not appropriate for inclusion in the FOST. The area requiring institutional controls (ARIC) for VOC vapors already includes the location of well IR33MW64A.

RESPONSES TO U.S. ENVIRONMENTAL PROTECTION AGENCY (EPA) COMMENTS ON THE DRAFT FINDING OF SUITABILITY TO TRANSFER (FOST) FOR PARCEL G, HUNTERS POINT NAVAL SHIPYARD, SAN FRANCISCO, CALIFORNIA, DATED JUNE 17, 2014 (CONTINUED)

Comment Number	Section/ Page	Comment	Response to Comment
3.	Section 3.1.2, Post-ROD Remedial and Removal Actions, Page 5, Last Paragraph	The last paragraph states, "A soil gas survey was completed at the Property in 2010 (Sealaska 2013). Figure 4 shows the areas requiring institutional controls (ARIC) for VOC vapors as currently envisioned based on the results of the soil vapor survey, as well as areas for other restrictions." Please note that in accordance with *Assessing Protectiveness at Sites for Vapor Intrusion* Supplement to the "Comprehensive Five-Year Review Guidance" (OSWER Directive 9200.2-84), the Five Year Review process will revisit previous assumptions about remediation goals and protectiveness of remedies using updated information from multiple lines of evidence. Please also note that the *Draft OSWER Guidance for Evaluating the Vapor Intrusion to Indoor Air Pathway from Groundwater and Soil (Subsurface Vapor Intrusion Guidance)* (EPA 530-D-02-004), states that multiple lines of evidence should be used to determine concerns regarding vapor intrusion. Finally, future owners may change current land uses in ways that could create new preferential pathways for vapor intrusion. Please add language that acknowledges that the Five Year Review process will consider any updates in regulatory guidance, and the Risk Management Plan and work plans for future construction submitted for approval by FFA signatories will address the potential for new construction to create new conduits for vapor intrusion.	The Navy acknowledges that the Five-Year Review process will consider any updates in regulatory guidance and that any Risk Management Plan that is relied upon as a mechanism to implement land use controls or any work plans submitted for future construction will address the potential for new construction to create new conduits for vapor intrusion. However, the purpose of the FOST is to summarize how the requirements and notifications for hazardous substances, petroleum products, and other regulated materials have been satisfied in order to a support a determination that the property is suitable for transfer. Information regarding the Five-Year Review process, and representations regarding what a Risk Management Plan or a work plan submitted in the future for approval by the FFA signatories will address, are matters that are not pertinent to how the requirements and notifications for hazardous substances, petroleum products, and other regulated materials have been satisfied by the Navy as conditions prerequisite to transfer and, therefore are not necessary for purposes of the FOST. Therefore, the text of the FOST has not been revised as requested.

RESPONSES TO U.S. ENVIRONMENTAL PROTECTION AGENCY (EPA) COMMENTS ON THE DRAFT FINDING OF SUITABILITY TO TRANSFER (FOST) FOR PARCEL G, HUNTERS POINT NAVAL SHIPYARD, SAN FRANCISCO, CALIFORNIA, DATED JUNE 17, 2014 (CONTINUED)

Comment Number	Section/ Page	Comment	Response to Comment
4.	Section 3.5 Asbestos Containing Material, Page 8	This discussion summarizes information base-wide. Please consider stating the number of buildings in Parcel G where the Navy has conducted remediation and the number of buildings that still contain asbestos and listing these individually.	The text has been expanded as follows. "*In summary, the Navy conducted remediation for ACM at 16 buildings at the Property between 1995 and 2011. ACM or suspected ACM remains in 12 buildings, including Buildings 303, 324, 351, 351A, 364, 365, 401, 409, 411, 419, 420, and 435.*"
5.	Section 3.7 Polychlorinated Biphenyls, Page 9, Last Paragraph on the Page	This discussion summarizes information base-wide. Please clarify the number of transformers in Parcel G.	The text has been expanded as follows. "*A total of 13 transformers, capacitors, or oil circuit breakers were associated with the Property at the following buildings: 324 (one), 351 (one), 351A (one), 402 (two), 411 (seven), and 439 (one). The EBS report listed 10 of these pieces of electrical equipment as disposed and the remaining three as abandoned. The three "abandoned" transformers remain on site, one at each of the following three buildings: 324, 351A, and 402. These transformers contain PCBs at less than 5 ppm (PWCSFB 1996). The Navy's Caretaker Site Office verified that these three transformers remain on site.*"

RESPONSES TO U.S. ENVIRONMENTAL PROTECTION AGENCY (EPA) COMMENTS ON THE DRAFT FINDING OF SUITABILITY TO TRANSFER (FOST) FOR PARCEL G, HUNTERS POINT NAVAL SHIPYARD, SAN FRANCISCO, CALIFORNIA, DATED JUNE 17, 2014 (CONTINUED)

Comment Number	Section/ Page	Comment	Response to Comment
6.	Section 3.7 Polychlorinated Biphenyls, Page 10, First Paragraph on the Page	The third sentence states, "Removals were recommended whenever any problems were found." Please clarify what is meant by "problems." Also please state whether or not soil sampling was done near the removed transformers.	The text has been revised as follows. "Removals were recommended whenever *evidence of a spill or release was* ~~any problems were~~ found (*PRC Environmental Management, Inc., Levine-Fricke-Recon, and Uribe and Associates 1996* ~~Tetra Tech EM Inc. 1998~~)." Description of sampling details is beyond the scope of the FOST. Sampling details are available in other documents, including the remedial investigation report cited in the text revision.

RESPONSES CALIFORNIA DEPARTMENT OF TOXIC SUBSTANCES CONTROL (DTSC) COMMENTS ON THE DRAFT FINDING OF SUITABILITY TO TRANSFER (FOST) FOR PARCEL G, HUNTERS POINT NAVAL SHIPYARD, SAN FRANCISCO, CALIFORNIA, DATED JUNE 17, 2014

Comment Number	Section/ Page	Comment	Response to Comment
Responses to Comments from California Department of Toxic Substances Control (Ryan Miya, dated July 23, 2014)			
Specific Comment			
1.	Section 3.1.1, Pre-ROD Removal Actions, Page 3	Last two bullet items. Please specify approximate volumes of materials removed during the April 2002 and February 2004 removal actions accordingly.	Section 3.1.1 has been expanded as follows. April 2002 to June 2003. "*More than 27,500 pounds of material was removed and disposed of off site.*" The bullet describing the February 2004 removal has been deleted because none of the stockpiles was located on the Property.
2a.	Section 3.1.2, Post-ROD Remedial and Removal Actions, Page 4	First bullet item. Please verify if the end date listed (March 2009 instead of June 2011?) is correct for the radiological removal action.	The June 2011 completion date is based on the final removal action completion report (Tetra Tech EC, Inc. 2011). Although most of the removal action was completed in 2008 and 2009, work extended until June 2011. The report was not changed as a result of this comment.

RESPONSES CALIFORNIA DEPARTMENT OF TOXIC SUBSTANCES CONTROL (DTSC) COMMENTS ON THE DRAFT FINDING OF SUITABILITY TO TRANSFER (FOST) FOR PARCEL G, HUNTERS POINT NAVAL SHIPYARD, SAN FRANCISCO, CALIFORNIA, DATED JUNE 17, 2014 (CONTINUED)

Comment Number	Section/ Page	Comment	Response to Comment
2b.	Section 3.1.2, Post-ROD Remedial and Removal Actions, Page 4	Second and third bullet items. Please provide brief summaries of the effectiveness of the ZVI groundwater treatments based on monitoring results obtained to date. For example, groundwater concentrations have remained below ROD remediation goals since [month and year] and continue to be monitored on an [annual] basis as a part of the basewide groundwater monitoring program.	The second bullet (October 2008 to April 2009) has been expanded as follows. "*COCs in groundwater at Parcel G indicate concentrations less than remediation goals or declining trends since the treatment (Arcadis 2014a). Groundwater continues to be monitored semiannually as part of the basewide groundwater monitoring program.*" The third bullet (April to May 2010) has been expanded as follows. "The pickling vault was removed at IR Site 9 (*adjacent to Building 423*) and about 31,000 pounds of ZVI was placed in the excavation for further treatment of *hexavalent chromium in* groundwater (Tetra Tech EC, Inc. 2010). *Concentrations of hexavalent chromium remained below the trigger level in samples collected from wells downgradient from the pickling vault for 3 years after the removal and treatment, until groundwater sampling ceased (CE2-Kleinfelder 2012a).*"

RESPONSES CALIFORNIA DEPARTMENT OF TOXIC SUBSTANCES CONTROL (DTSC) COMMENTS ON THE DRAFT FINDING OF SUITABILITY TO TRANSFER (FOST) FOR PARCEL G, HUNTERS POINT NAVAL SHIPYARD, SAN FRANCISCO, CALIFORNIA, DATED JUNE 17, 2014 (CONTINUED)

Comment Number	Section/ Page	Comment	Response to Comment
3.	Section 3.1.3, Radiological Concerns, Page 5	First paragraph. Please revise the text to state / reference / identify that based on the review of all relevant documentation and independent confirmatory analysis, all of the potentially radiologically impacted buildings and building sites previously identified in the HRA within the Property have been recommended by the California Department of Public Health's Environmental Management Branch for radiological unrestricted release.	Section 3.1.3 has been revised as follows. "*Based on the review of all relevant documentation and independent confirmatory analysis, all of the potentially radiologically impacted buildings and building sites previously identified in the HRA within the Property have been recommended by the California Department of Public Health's Environmental Management Branch for radiological unrestricted release (DTSC 2012).*"
4a.	Section 4.0, Adjacent Parcels, Page 10	Second paragraph. Please verify the statement that portions of Parcel E immediately upwind of the Property are either not radiologically impacted or have been surveyed and radiologically released for unrestricted use. The two potential upwind Parcel E locations where this may not apply are the building 707 triangle area as well as the former building site 702 and associated salvage yard area.	The text has been revised to delete the discussion of the cleanup of upwind areas and to rely on the demonstrated dust control to prevent migration of radiological contaminants from upwind areas. "The only potential exposure pathway for radiological exposure would be via inhalation of windblown dust from uncovered areas ~~at Parcel E. Winds blow predominantly from the west at HPNS, and the portions of Parcel E immediately upwind from the Property are either not radiologically impacted or have been surveyed and radiologically released for unrestricted use.~~ The Navy maintains active dust control measures for all radiologically impacted areas…"

RESPONSES CALIFORNIA DEPARTMENT OF TOXIC SUBSTANCES CONTROL (DTSC) COMMENTS ON THE DRAFT FINDING OF SUITABILITY TO TRANSFER (FOST) FOR PARCEL G, HUNTERS POINT NAVAL SHIPYARD, SAN FRANCISCO, CALIFORNIA, DATED JUNE 17, 2014 (CONTINUED)

Comment Number	Section/ Page	Comment	Response to Comment
4b.	Section 4.0, Adjacent Parcels, Page 11	East - Parcels C and D-1 subsection. Please consider specifying in the second and third sentences that the groundwater plumes at Parcels D-1 and C are also downgradient groundwater plumes.	The text has been revised as follows. "The *downgradient* groundwater plume at Parcel D-1 has been remediated. Groundwater plumes at Parcel C are undergoing remediation and are more than 500 feet east *and downgradient* of the Property…"
4c.	Section 4.0, Adjacent Parcels, Page 11	South - Parcels D-1 and E. Please specify that areas of known VOC contamination in soil and groundwater at Parcel D-1 will also be targeted for remediation in the future using in situ injection of a biological substrate or zero valent iron in accordance with the Final Record of Decision for Parcels D-1 and UC-1.	Section 4.0 has been expanded to describe ongoing remedial actions at areas adjacent to the Property in response to EPA general comment 2. The added text describes completed and planned remediation of soil and groundwater at Parcels D-1 and E.

RESPONSES CALIFORNIA DEPARTMENT OF TOXIC SUBSTANCES CONTROL (DTSC) COMMENTS ON THE DRAFT FINDING OF SUITABILITY TO TRANSFER (FOST) FOR PARCEL G, HUNTERS POINT NAVAL SHIPYARD, SAN FRANCISCO, CALIFORNIA, DATED JUNE 17, 2014 (CONTINUED)

Comment Number	Section/ Page	Comment	Response to Comment
5.	Section 6.0, Restrictions, Page 14	IC land use restrictions for the Property, item 2. Given that the text identifies restrictions for the portions of the Property designated for open space, educational/cultural, and industrial land uses in accordance with the 1997 redevelopment plan, please consider either adding a figure to the FOST for additional clarification that identifies the specific reuse areas described in this section or modifying the text to state specifically that the area of the Property to which these restrictions apply is identified in the referenced figure as the "ARIC Requested to Residential Use".	The text has been revised as follows. "~~Use of the portions of the Property~~ *The portions of the Property designated as the Shipyard South Multi-Use District in the SFRA's Hunters Point Shipyard Redevelopment Plan, as amended in 2010 (SFRA 2010), which were* designated for open space, educational/cultural, and industrial land uses in SFRA's former 1997 redevelopment plan, as adopted in 1997 (SFRA 1997) ~~is restricted~~ (see *ARIC related to residential use on* Figure 4) *are restricted for any of the following uses* unless approved by the FFA signatories in accordance with the quitclaim deed, CRUP, and risk management plan for each parcel ~~before the property is used for any of the following restricted uses~~:"
Responses to Additional Comments from California Department of Toxic Substances Control (Ryan Miya, dated October 17, 2014)			
1.	---	I have reviewed both the Parcel G Draft Final (Redline) FOST and RTC documents and all DTSC comments were adequately addressed. I have no additional comments at this time.	Comment noted.

RESPONSES TO SAN FRANCISCO BAY REGIONAL WATER QUALITY CONTROL BOARD (WATER BOARD) COMMENTS ON THE DRAFT FINDING OF SUITABILITY TO TRANSFER (FOST) FOR PARCEL G, HUNTERS POINT NAVAL SHIPYARD, SAN FRANCISCO, CALIFORNIA, DATED JUNE 17, 2014

Comment Number	Section/Page	Comment	Response to Comment
Responses to Comments from San Francisco Regional Water Quality Control Board (Nathan King, dated July 31, 2014)			
Specific Comments			
1.	---	Thank you for submitting the draft Parcel G FOST for our review. We have reviewed comments provided by EPA, DTSC, and SFDPH.	Comment noted.
2.	Figure 5	We concur with EPA's Comment 13 that Figure 5 should include the locations of the former ASTs.	Information on the locations of ASTs within buildings is not available. The following note has been added to Figure 5. "*Locations of nine other removed ASTs within buildings are not shown on this figure. These ASTs were located inside Buildings 302 (three), 304 (two), 324 (two), 363 (one), and 411 (one). Exact locations of the ASTs within the buildings are unknown.*"
3.	Sections 6.0 and 7.0	With respect to the Restrictions and Covenants section of the FOST, we reserve the right to provide additional comments on the Draft Final FOST once the SMP and CRUP are finalized.	The Navy assumes that "SMP" refers to the risk management plan (RMP). The Navy understands that additional comments on the FOST may result from discussions related to the RMP and CRUP.
4.	---	If you could, please outline the process of finalizing the FOST with respect to the timing of the SMP and CRUP.	The Navy's understanding of the sequence is to finalize the FOST and then the CRUP and deed. The RMP is not dependent on the FOST, CRUP, or deed and may be finalized before or after conveyance of the Property.

RESPONSES TO SAN FRANCISCO BAY REGIONAL WATER QUALITY CONTROL BOARD (WATER BOARD) COMMENTS ON THE DRAFT FINDING OF SUITABILITY TO TRANSFER (FOST) FOR PARCEL G, HUNTERS POINT NAVAL SHIPYARD, SAN FRANCISCO, CALIFORNIA, DATED JUNE 17, 2014 (CONTINUED)

Comment Number	Section/Page	Comment	Response to Comment
Responses to Additional Comments from San Francisco Regional Water Quality Control Board (Ross Steenson, dated October 15, 2014)			
1.	---	I reviewed the redline FOST for Parcel G and have no comments or concerns.	Comment noted.

RESPONSES TO CITY AND COUNTY OF SAN FRANCISCO (CITY) COMMENTS ON THE DRAFT FINDING OF SUITABILITY TO TRANSFER (FOST) FOR PARCEL G, HUNTERS POINT NAVAL SHIPYARD, SAN FRANCISCO, CALIFORNIA, DATED JUNE 17, 2014

Comment Number	Section/Page	Comment	Response to Comment
Responses to Comments from City and County of San Francisco (Amy Brownell, dated July 24, 2014)			
Specific Comments			
1.	Section 3.1.2, Post-ROD Remedial and Removal Actions, page 4, last paragraph	Please explain the "areas for other restrictions" referenced and shown on Figure 4 and please refer the reader to Section 6.0.	Section 3.1.2 has been expanded as follows. *"Figure 4 also shows areas with restrictions related to residential use and Property-wide restrictions (for example, related to groundwater use). Refer to Section 6.0 for details on restrictions."*
2.	Section 3.1.3 Radiological Concerns, last paragraph	Suggest referencing Figure 3 in this paragraph.	Section 3.1.3 has been revised as follows. "The Navy has completed a time-critical removal action (TCRA) for storm drains and sanitary sewers within the Property*; refer to Figure 3 for the locations of storm drains and sanitary sewers*."

RESPONSES TO CITY AND COUNTY OF SAN FRANCISCO (CITY) COMMENTS ON THE DRAFT FINDING OF SUITABILITY TO TRANSFER (FOST) FOR PARCEL G, HUNTERS POINT NAVAL SHIPYARD, SAN FRANCISCO, CALIFORNIA, DATED JUNE 17, 2014

Comment Number	Section/Page	Comment	Response to Comment
3.	Section 3.5, Asbestos-Containing Material, last sentence	We request that the last sentence be modified to match language that is presented later in this FOST under the Covenants section as follows: "Remediation of ACM by the Navy is not required in or on buildings, structures, facilities, and utilities that may be scheduled for demolition by the Transferee where the transfer document prohibits occupation of the buildings [until the ACM is abated or the building is demolished] ~~before demolition~~; and [where] the Transferee assumes responsibility for management of any ACM in accordance with applicable laws."	Section 3.5 has been revised as follows. "Remediation of ACM by the Navy is not required in or on buildings, structures, facilities, and utilities that may be scheduled for demolition by the Transferee where *(1)* the transfer document prohibits occupation of the buildings *until the ACM is abated or the building is demolished* ~~before demolition~~; and *(2)* the Transferee assumes responsibility for management of any ACM in accordance with applicable laws."

RESPONSES TO CITY AND COUNTY OF SAN FRANCISCO (CITY) COMMENTS ON THE DRAFT FINDING OF SUITABILITY TO TRANSFER (FOST) FOR PARCEL G, HUNTERS POINT NAVAL SHIPYARD, SAN FRANCISCO, CALIFORNIA, DATED JUNE 17, 2014

Comment Number	Section/Page	Comment	Response to Comment
4.	Section 5.4, Pesticides, and Table A-1	As we have written in comments on previous Navy FOSTs, we disagree with the Navy's position on pesticides. We are including our opinion here for the benefit of readers who might not be familiar with this issue. Unless the Navy is willing to reconsider its position on this issue, we understand that we will remain in an "agree to disagree" position on this issue. We disagree with the language that the Navy has included in Section 5.4 that reads: "The Navy knows of no use of any registered pesticide in a manner inconsistent with its labeling and believes that all applications were made in accordance with the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) (7 U.S.C. § 136, et seq.), its implementing regulations, and according to the labeling provided with such substances. It is Navy's position that it shall have no obligation under the covenants provided pursuant to § 120(h)(3)(A)(ii) of the Comprehensive Environmental Response, Compensation and Liability Act of 1980, [comment continues below]	The Navy notes and understands the city's comment.

RESPONSES TO CITY AND COUNTY OF SAN FRANCISCO (CITY) COMMENTS ON THE DRAFT FINDING OF SUITABILITY TO TRANSFER (FOST) FOR PARCEL G, HUNTERS POINT NAVAL SHIPYARD, SAN FRANCISCO, CALIFORNIA, DATED JUNE 17, 2014

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4. (con't)		42 U.S.C. § 9620(h)(3)(A)(ii), for the remediation of any registered pesticides applied in a manner consistent with its labeling and in accordance with FIFRA." While we acknowledge that CERCLA provides a defense to the Navy for legally applied pesticides, the burden is on the Navy to establish that it has applied pesticides in a legal manner. The above statement does not establish that the Navy has evidence that is has applied pesticides appropriately, which is the only relevant consideration. We agree and support the USEPA's statements that the EPA has included in previous concurrence letters on FOSTs for other parcels that the Navy should be held responsible if pesticides are found above the CERCLA action levels. We encourage the USEPA to include the same statement in their concurrence letter on the FOST.	[response included above]

RESPONSES TO CITY AND COUNTY OF SAN FRANCISCO (CITY) COMMENTS ON THE DRAFT FINDING OF SUITABILITY TO TRANSFER (FOST) FOR PARCEL G, HUNTERS POINT NAVAL SHIPYARD, SAN FRANCISCO, CALIFORNIA, DATED JUNE 17, 2014

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5.	Insert new Section 5.5, Tar-paper wrapped pipes	We think it would be beneficial to all parties to add the notice about tar-paper wrapped pipes that we have been discussing.	Pipes wrapped in tar paper are not expected to be present at the Property. However, Section 3.2 has been expanded as follows to account for their potential presence. "*Pipes coated with a material containing PAHs may be present below ground surface at various locations at the Property. PAHs are regulated substances and must be handled in accordance with all applicable federal, state, and local laws and regulations. The Navy, in consultation with EPA, DTSC, and the Water Board, has determined that the pipes and associated coating material in their existing subsurface condition do not present any threat to human health or the environment, and will not present any threat to human health or the environment if and when removed and handled in accordance with applicable laws.*"

RESPONSES TO CITY AND COUNTY OF SAN FRANCISCO (CITY) COMMENTS ON THE DRAFT FINDING OF SUITABILITY TO TRANSFER (FOST) FOR PARCEL G, HUNTERS POINT NAVAL SHIPYARD, SAN FRANCISCO, CALIFORNIA, DATED JUNE 17, 2014

Comment Number	Section/Page	Comment	Response to Comment
6.	Section 6.0, Restrictions, page 15, item 3(e): Construction of Enclosed Structures	Please replace all the wording starting with the sentence "Alternatively, the ARIC…" with "Prior to construction of any new enclosed structure within the ARIC for VOC vapors, the Owner shall obtain approval from the FFA Signatories of the vapor mitigation engineering controls or design alternatives to be incorporated in that structure. Prior to occupation of enclosed structures within the VOC ARIC, the Owner shall obtain FFA signatory approval that any necessary engineering controls or design alternatives have been properly constructed and are operating successfully. As the VOC vapor contamination areas that are producing unacceptable vapor inhalation risks are reduced over time, or in response to further soil, vapor, and groundwater sampling and analysis for VOCs that establishes that areas now included in the VOC ARIC do not pose an unacceptable potential exposure risk due to VOC vapors, the FFA signatories may modify the VOC ARIC. Any Owner or Owners may apply to the FFA Signatories for a modification of the VOC ARIC. Such application shall involve submission of a soil gas sampling work plan for review and approval by the FFA Signatories."	Section 6.0, item 3(e) has been revised as follows. Construction of enclosed structures. Risk to human health may exist from potential intrusion of VOC vapors into structures built at the Property. Consequently, these areas are included in the ARIC*s* for VOC vapors (see Figure 4). ~~Potential risk can be reduced~~ *Prior to construction of any new enclosed structure within a VOC ARIC, the Owner shall obtain approval from the FFA signatories of the vapor mitigation engineering controls or design alternatives to be incorporated in that structure. A reduction in potential risk can be achieved* through engineering controls or other design alternatives that meet the specifications set forth in DTSC's "Final Guidance for the Evaluation and Mitigation of Subsurface Vapor Intrusion to Indoor Air" and "Final Vapor Intrusion Mitigation Advisory, Revision 1," both dated October 2011 (DTSC 2011a, 2011b). ~~Alternatively, the ARIC for VOC vapors may be modified by the FFA signatories as the soil or groundwater contamination areas that are producing unacceptable vapor inhalation risks are reduced over time or in response to further soil, vapor, and groundwater sampling and analysis for VOCs that establishes that areas now included in the~~ [response continues below]

RESPONSES TO CITY AND COUNTY OF SAN FRANCISCO (CITY) COMMENTS ON THE DRAFT FINDING OF SUITABILITY TO TRANSFER (FOST) FOR PARCEL G, HUNTERS POINT NAVAL SHIPYARD, SAN FRANCISCO, CALIFORNIA, DATED JUNE 17, 2014

Comment Number	Section/Page	Comment	Response to Comment
6. (con't)	Section 6.0, Restrictions, page 15, item 3(e): Construction of Enclosed Structures	[continuation of response; see comment above]	~~ARIC for VOC vapors do not pose an unacceptable potential exposure risk as a result of VOC vapors. When construction of enclosed structures or reuse of an existing building is proposed in an ARIC for VOC vapors, the FFA signatories must approve the design of the vapor control system built into foundations. Enclosed structures within the ARIC for VOC vapors shall not be occupied until~~ *Prior to occupation of enclosed structures with a VOC ARIC*, the Owner ~~has requested and~~ shall obtained FFA signatory approval ~~(through approval of a RACR or similar document)~~ that any necessary engineering controls or design alternatives have been properly constructed and are operating successfully.

RESPONSES TO CITY AND COUNTY OF SAN FRANCISCO (CITY) COMMENTS ON THE DRAFT FINDING OF SUITABILITY TO TRANSFER (FOST) FOR PARCEL G, HUNTERS POINT NAVAL SHIPYARD, SAN FRANCISCO, CALIFORNIA, DATED JUNE 17, 2014

Comment Number	Section/Page	Comment	Response to Comment
Responses to Additional Comments from City and County of San Francisco (Amy Brownell, dated July 30, 2014)			
Specific Comments			
1.	Section 6.0, Restrictions, page 14, item 2	Please replace all the wording in the item 2 paragraph prior to the bullets with the following: "The portions of the Property designated as the Shipyard South Multi-Use District in the SFRA's Hunters Point Shipyard Redevelopment Plan, as amended, 2010 (SFRA 2010 Plan) which were designated for open space, educational/cultural, and industrial land uses in SFRA's former Hunters Point Shipyard Redevelopment Plan, as adopted in 1997 (SFRA 1997 Plan) (see Figure 4 - area of all other restrictions) are restricted for any of the following uses unless approved by the FFA signatories in accordance with the quitclaim deed, CRUP, and risk management plan for each parcel:"	The text has been revised as follows. "~~Use of the portions of the Property~~ *The portions of the Property designated as the Shipyard South Multi-Use District in the SFRA's Hunters Point Shipyard Redevelopment Plan, as amended in 2010 (SFRA 2010), which were* designated for open space, educational/cultural, and industrial land uses in SFRA's former 1997 redevelopment plan, as adopted in 1997 (SFRA 1997) ~~is restricted~~ (see *ARIC related to residential use on* Figure 4) *are restricted for any of the following uses* unless approved by the FFA signatories in accordance with the quitclaim deed, CRUP, and risk management plan for each parcel ~~before the property is used for any of the following restricted uses~~:"
2.	---	Please add a reference to the SFRA's Hunters Point Shipyard Redevelopment Plan, as amended, 2010.	The references section has been updated as requested.
Responses to Additional Comments from City and County of San Francisco (Amy Brownell, dated October 28, 2014)			
1.	---	SFDPH has no further comments on the Parcel G FOST.	Comment noted.

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